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=> d his

     (FILE 'HOME' ENTERED AT 12:20:16 ON 15 NOV 2004)

     FILE 'HCAPLUS' ENTERED AT 12:20:23 ON 15 NOV 2004
L1             1 US20040176630/PN

     FILE 'REGISTRY' ENTERED AT 12:20:35 ON 15 NOV 2004

     FILE 'HCAPLUS' ENTERED AT 12:20:40 ON 15 NOV 2004
L2             TRA L1 1- RN :       13 TERMS

     FILE 'REGISTRY' ENTERED AT 12:20:40 ON 15 NOV 2004
L3            13 SEA L2

     FILE 'WPIX' ENTERED AT 12:20:43 ON 15 NOV 2004
L4             1 US20040176630/PN

=> b hcap
FILE 'HCAPLUS' ENTERED AT 12:21:08 ON 15 NOV 2004
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FILE COVERS 1907 - 15 Nov 2004  VOL 141 ISS 21
FILE LAST UPDATED: 14 Nov 2004  (20041114/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d all l1

L1   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:740033  HCAPLUS
DN   141:268548
ED   Entered STN:  10 Sep 2004
TI   Photoresist composition comprising alicyclic methacrylate having oxygen
     substituent group on alpha-methyl
IN   Watanabe, Takeru; Kinsho, Takeshi
PA   Japan
SO   U.S. Pat. Appl. Publ., 9 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  G03C001-494
     ICS  C07C255-45
NCL  558430000; 560128000
CC   74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ------------------  ----   --------    --------------------   --------
PI   US 2004176630       A1     20040909    US 2004-791843         20040304 <--
     JP 2004269412       A2     20040930    JP 2003-61476          20030307
PRAI JP 2003-61476       A      20030307
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 2004176630    ICM    G03C001-494
                  ICS    C07C255-45
                  NCL    558430000; 560128000
 JP 2004269412    FTERM  2H025/AA01; 2H025/AA02; 2H025/AA09; 2H025/AB16;
                         2H025/AC04; 2H025/AC08; 2H025/AD03; 2H025/BE00;
                         2H025/BE10; 2H025/BG00; 2H025/CB14; 2H025/CB41;
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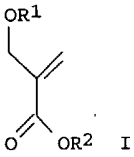
Search done by Noble Jarrell

2H025/FA17; 4C037/UA05; 4H006/AA01; 4H006/AB46;
4H006/BJ20; 4H006/BJ30; 4H006/BN10; 4H006/BP10;
4H006/KA31; 4J100/AL08P; 4J100/BA02P; 4J100/BA03P;
4J100/BA04P; 4J100/BA05P; 4J100/BA11P; 4J100/BA13P;
4J100/BA15P; 4J100/BA20P; 4J100/BA40P; 4J100/BB01P;
4J100/BB18P; 4J100/BC02P; 4J100/BC03P; 4J100/BC08P;
4J100/BC09P; 4J100/BC12P; 4J100/BC15P; 4J100/BC53P;
4J100/JA38

GI



I

AB Disclosed are alicyclic methacrylate compds. having an oxygen substituent group on their .alpha.-Me group, represented by the formula I (R1 = H, C1-10-alkyl, hydroxyl, bond, carbonyl, carboxyl, cyano; R2 = monovalent C3-20-alicyclic organic). Polymers prepared from these alicyclic methacrylate compds. have improved transparency, especially at the exposure wavelength of an excimer laser, and improved dry etching resistance. Resist compns. comprising the polymers are sensitive to high-energy radiation, show a high resolution, allow smooth development, lend themselves to micropatterning, and are thus suitable as micropatterning material for VLSI fabrication.

ST photoresist compn alicyclic methacrylate copolymer etching resistance

IT Photoresists
(photoresist composition comprising alicyclic methacrylate having oxygen substituent group on alpha-Me)

IT 754213-69-9P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist composition comprising alicyclic methacrylate having oxygen substituent group on alpha-Me)

IT 380379-88-4P 663617-43-4P 663617-47-8P 754213-65-5P 754213-66-6P 754213-67-7P 754213-68-8P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of polymers for photoresist composition)

IT 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 7398-56-3 121601-93-2, 1-Adamantyl acrylate 242129-35-7 326925-69-3, 1-Ethylcyclopentyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymers for photoresist composition)

=> b reg
FILE 'REGISTRY' ENTERED AT 12:21:13 ON 15 NOV 2004
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STRUCTURE FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4
DICTIONARY FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

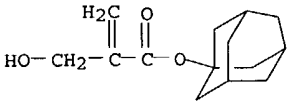
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide cit tot

L3 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **754213-69-9** REGISTRY
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate and tricyclo[3.3.1.13,7]dec-1-yl 2-(hydroxymethyl)-2-propenoate (9CI) (CA INDEX NAME)
MF (C16 H24 O2 . C14 H20 O3 . C8 H10 O4)x
CI PMS
PCT Polyacrylic, Polyester, Polyester formed, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); USES (Uses)

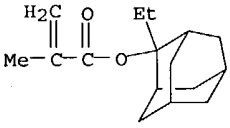
CM 1

CRN 380379-88-4
CMF C14 H20 O3



CM 2

CRN 209982-56-9
CMF C16 H24 O2



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CRN 195000-66-9
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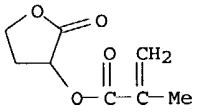
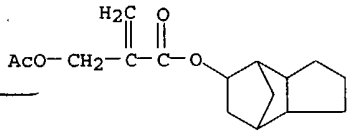


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

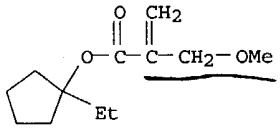
L3 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **754213-68-8** REGISTRY
CN 2-Propenoic acid, 2-[(acetyloxy)methyl]-, octahydro-4,7-methano-1H-inden-5-yl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H22 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 3 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **754213-67-7** REGISTRY
CN 2-Propenoic acid, 2-(methoxymethyl)-, 1-ethylcyclopentyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H20 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



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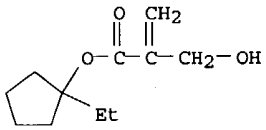
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 4 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **754213-66-6** REGISTRY
CN 2-Propenoic acid, 2-(hydroxymethyl)-, 1-ethylcyclopentyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C11 H18 O3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)

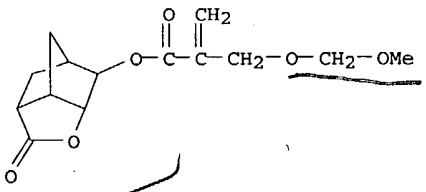


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **754213-65-5** REGISTRY
CN INDEX NAME NOT YET ASSIGNED
FS 3D CONCORD
MF C14 H18 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

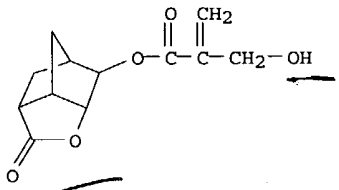
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

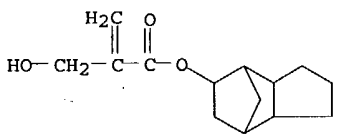
L3 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **663617-47-8** REGISTRY
CN 2-Propenoic acid, 2-(hydroxymethyl)-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H14 O5
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

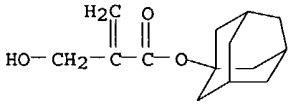
L3 ANSWER 7 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **663617-43-4** REGISTRY
CN 2-Propenoic acid, 2-(hydroxymethyl)-, octahydro-4,7-methano-1H-inden-5-yl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H20 O3
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

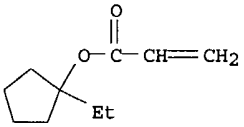
L3 ANSWER 8 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **380379-88-4** REGISTRY
CN 2-Propenoic acid, 2-(hydroxymethyl)-, tricyclo[3.3.1.13,7]dec-1-yl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H20 O3
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

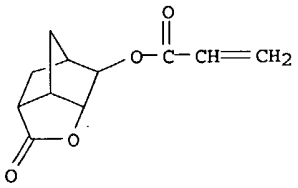
L3 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **326925-69-3** REGISTRY
CN 2-Propenoic acid, 1-ethylcyclopentyl ester (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Ethylcyclopentyl acrylate
FS 3D CONCORD
MF C10 H16 O2
CI COM
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **242129-35-7** REGISTRY
CN 2-Propenoic acid, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
DR 389133-30-6
MF C11 H12 O4
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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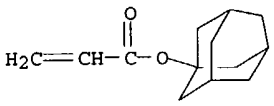
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
14 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 11 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **121601-93-2** REGISTRY
CN 2-Propenoic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Adamantyl acrylate
FS 3D CONCORD
MF C13 H18 O2
CI COM
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
23 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **7398-56-3** REGISTRY
CN 2-Propenoic acid, octahydro-4,7-methano-1H-inden-5-yl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4,7-Methanoindan-5-ol, hexahydro-, acrylate
CN Acrylic acid, hexahydro-4,7-methanoindan-5-yl ester (7CI, 8CI)
OTHER NAMES:
CN Dicyclopentanyl acrylate
CN FA 513A
CN Fancryl 513A
CN Fancryl FA 513A
CN MPL 209S
CN Tetrahydrodicyclopentadienyl acrylate
CN Tricyclodecanyl acrylate
AR 79637-74-4
FS 3D CONCORD
DR 106803-41-2, 197980-59-9
MF C13 H18 O2
CI COM
LC STN Files: CA, CAOLD, CAPLUS, CHEMLIST, TOXCENTER, USPATFULL
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP

(Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
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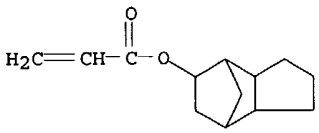

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

85 REFERENCES IN FILE CA (1907 TO DATE)
26 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
85 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN
RN **280-57-9** REGISTRY
CN 1,4-Diazabicyclo[2.2.2]octane (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
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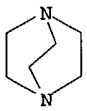
CN A 33
CN Bicyclo[2.2.2]-1,4-diazaoctane
CN D 33LV
CN Dabco
CN Dabco 33LV
CN Dabco 3LV
CN Dabco Crystalline
CN Dabco L 1202
CN Dabco S 25
CN Jeffcat TD 100
CN L 33
CN L 33E
CN LC 96003
CN Minico L 1020
CN N,N'-endo-Ethylenepiperazine
CN Niax A 33
CN NSC 56362
CN PC CAT TD 33
CN Polycat 33LV
CN TD 100
CN TED
CN TEDA
CN Teda L 33
CN TEDA-L 33E
CN Tegamine 33
CN Tego Amine
CN Texacat TD 100
CN Texacat TD 33
CN Thancat TD 33
CN Thancat TD 33A
CN Toral SM 2
CN Toyocat L 33
CN Toyocat TEDA L 33
CN Triethylenediamine
FS 3D CONCORD
DR 23790-33-2, 101484-19-9, 150605-01-9, 88935-43-7, 203072-11-1, 309955-09-7
MF C6 H12 N2
CI COM, RPS
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)

Search done by Noble Jarrell

Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4967 REFERENCES IN FILE CA (1907 TO DATE)
241 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4976 REFERENCES IN FILE CAPLUS (1907 TO DATE)
107 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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FILE 'WPIX' ENTERED AT 12:21:24 ON 15 NOV 2004
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FILE LAST UPDATED: 12 NOV 2004 <20041112/UP>
MOST RECENT DERWENT UPDATE: 200473 <200473/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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>>> SMILES and ISOSMILES strings are no longer available as Derwent Chemistry Resource display fields <<<

=> d 2001-14

L4 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2004-675297 [66] WPIX
DNN N2004-535104 DNC C2004-240788
TI New alicyclic methacrylate compound, useful as monomers for polymerization to form base resins for use in micropatterning resist composition.
DC A14 A41 A89 G06 P83 P84

IN KINSHO, T; WATANABE, T
PA (SHIE) SHINETSU CHEM IND CO LTD; (KINS-I) KINSHO T; (WATA-I) WATANABE T
CYC 2
PI US 2004176630 A1 20040909 (200466)* 9 G03C001-494 <--
JP 2004269412 A 20040930 (200466) 16 C07C069-732
ADT US 2004176630 A1 US 2004-791843 20040304; JP 2004269412 A JP 2003-61476 20030307
PRAI JP 2003-61476 20030307
IC ICM C07C069-732; G03C001-494
ICS C07C069-734; C07C255-45; C07D307-93; C08F020-26; G03F007-039
AB US2004176630 A UPAB: 20041015
NOVELTY - Alicyclic methacrylate compound having an oxygen substituted group on its alpha -methyl group, is new.
DETAILED DESCRIPTION - Alicyclic methacrylate compound of formula OR1-CH2-C-C(O)-OR2, is new.
R1 = H or 1-10C alkyl that may contain halo, OH, ether, carbonyl, carboxyl, or CN;
R2 = 3-20C monovalent organic group.
USE - For use as monomers for polymerization to form base resins for use in micropatterning resist composition.
ADVANTAGE - The compound provides resist composition having improved etching resistance and resolution.
Dwg.0/0
FS CPI GMPI
FA AB
MC CPI: A01-D10B; A04-F06E4; A12-E07C; A12-L02B2; G06-D06; G06-F03C

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=>

=> b reg
FILE 'REGISTRY' ENTERED AT 12:51:56 ON 15 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4
DICTIONARY FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4

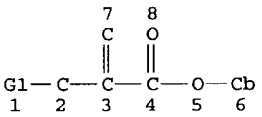
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que stat l7
L5 STR



VAR G1=OH/9
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L7 378 SEA FILE=REGISTRY SSS FUL L5

100.0% PROCESSED 78657 ITERATIONS 378 ANSWERS
SEARCH TIME: 00.00.02

=> d his

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L1 1 US20040176630/PN

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L2 TRA L1 1- RN : 13 TERMS

FILE 'REGISTRY' ENTERED AT 12:20:40 ON 15 NOV 2004
L3 13 SEA L2

FILE 'WPIX' ENTERED AT 12:20:43 ON 15 NOV 2004
L4 1 US20040176630/PN

FILE 'REGISTRY' ENTERED AT 12:26:48 ON 15 NOV 2004
L5 STR
L6 4 L5
L7 378 L5 FULL
SAVE TEMP REY843F0/A L7

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L8 142 L7

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L9            0 L7

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                 E WATANABE T/AU
L10        1997 E3-7
                 E WATANABE TAKERU/AU
L11          38 E3
                 E HATAKAYEMA J/AU
                 E HATAKEYAMA J/AU
L12         229 E3,E5
                 E KINSHO T/AU
L13          71 E3-4
L14        7881 (SHIN (1A) ETSU AND CHEM? OR VAN (1A) GRAAF)/CS,PA
L15           4 L8 AND L10-14
L16         138 L8 NOT L15
L17          40 L16 AND P/DT
L18          15 L17 AND US/PC


=> b hcap
FILE 'HCAPLUS' ENTERED AT 12:52:18 ON 15 NOV 2004
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FILE COVERS 1907 - 15 Nov 2004  VOL 141 ISS 21
FILE LAST UPDATED: 14 Nov 2004  (20041114/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d all phistrad l15 tot
L15  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:740033  HCAPLUS
DN   141:268548
ED   Entered STN:  10 Sep 2004
TI   Photoresist composition comprising alicyclic methacrylate having oxygen
     substituent group on alpha-methyl
IN   Watanabe, Takeru; Kinsho, Takeshi
PA   Japan
SO   U.S. Pat. Appl. Publ., 9 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  G03C001-494
     ICS  C07C255-45
NCL  558430000; 560128000
CC   74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2004176630        A1    20040909    US 2004-791843         20040304
     JP 2004269412        A2    20040930    JP 2003-61476          20030307
PRAI JP 2003-61476        A     20030307
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 2004176630    ICM    G03C001-494
                  ICS    C07C255-45
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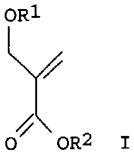
Search done by Noble Jarrell

NCL 558430000; 560128000
JP 2004269412 FTERM 2H025/AA01; 2H025/AA02; 2H025/AA09; 2H025/AB16; 2H025/AC04; 2H025/AC08; 2H025/AD03; 2H025/BE00; 2H025/BE10; 2H025/BG00; 2H025/CB14; 2H025/CB41; 2H025/FA17; 4C037/UA05; 4H006/AA01; 4H006/AB46; 4H006/BJ20; 4H006/BJ30; 4H006/BN10; 4H006/BP10; 4H006/KA31; 4J100/AL08P; 4J100/BA02P; 4J100/BA03P; 4J100/BA04P; 4J100/BA05P; 4J100/BA11P; 4J100/BA13P; 4J100/BA15P; 4J100/BA20P; 4J100/BA40P; 4J100/BB01P; 4J100/BB18P; 4J100/BC02P; 4J100/BC03P; 4J100/BC08P; 4J100/BC09P; 4J100/BC12P; 4J100/BC15P; 4J100/BC53P; 4J100/JA38

GI



I

AB Disclosed are alicyclic methacrylate compds. having an oxygen substituent group on their .alpha.-Me group, represented by the formula I (R1 = H, C1-10-alkyl, hydroxyl, bond, carbonyl, carboxyl, cyano; R2 = monovalent C3-20-alicyclic organic). Polymers prepared from these alicyclic methacrylate compds. have improved transparency, especially at the exposure wavelength of an excimer laser, and improved dry etching resistance. Resist compns. comprising the polymers are sensitive to high-energy radiation, show a high resolution, allow smooth development, lend themselves to micropatterning, and are thus suitable as micropatterning material for VLSI fabrication.

ST photoresist compn alicyclic methacrylate copolymer etching resistance

IT Photoresists
(photoresist composition comprising alicyclic methacrylate having oxygen substituent group on alpha-Me)

IT **754213-69-9P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist composition comprising alicyclic methacrylate having oxygen substituent group on alpha-Me)

IT **380379-88-4P 663617-43-4P** 663617-47-8P 754213-65-5P **754213-66-6P 754213-67-7P 754213-68-8P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of polymers for photoresist composition)

IT 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 7398-56-3 121601-93-2, 1-Adamantyl acrylate 242129-35-7 326925-69-3, 1-Ethylcyclopentyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymers for photoresist composition)

IT **754213-69-9P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoresist composition comprising alicyclic methacrylate having oxygen substituent group on alpha-Me)

RN 754213-69-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate and tricyclo[3.3.1.13,7]dec-1-yl 2-(hydroxymethyl)-2-propenoate (9CI) (CA INDEX NAME)

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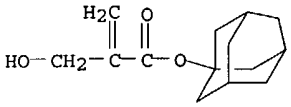
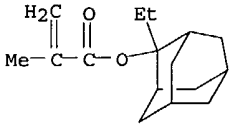
CRN 380379-88-4
CMF C14 H20 O3



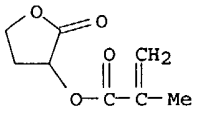
CM 2

CRN 209982-56-9
CMF C16 H24 O2



CM 3

CRN 195000-66-9
CMF C8 H10 O4



L15 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:591969 HCAPLUS
DN 137:161387
ED Entered STN: 09 Aug 2002
TI Polymers and their use in resists and pattern formation
IN **Hatakeyama, Jun**; Harada, Yuji; Watanabe, Atsushi; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Otani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko
PA **Shin-Etsu Chemical** Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F212-14
ICS C08F220-10; G03F007-004; G03F007-039; G03F007-38; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002220420	A2	20020809	JP 2001-346911	20011113
PRAI JP 2000-353876	A	20001121		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002220420	ICM	C08F212-14
	ICS	C08F220-10; G03F007-004; G03F007-039; G03F007-38; H01L021-027

AB The polymers have repeating units of [CR1(C6(CF3)dFe(OH)fH5-d-e-f)CR2R3]a, [CR1(C6(CF3)gFhH5-g-h)CR2R3]b, and [C(CR4R5(OR7))(CO2R6)CH2]c [R1, R2, R3 = H, F, linear, cyclic or branched C1-10 (un)fluorinated alkyl; R4, R5 = H, F, C1-10 (un)fluorinated alkyl; R4 and/or R5 contains .gtoreq.1 F; R6 = acid-unstable group; R7 = H, C1-10 alkyl; 0 .ltoreq. d < 5; 0 < f < 5; e, g, h = 0-5; 0 < d + e < 5; 0 < g + h .ltoreq. 5; 0 .ltoreq. a/(a + b + c) < 1; 0 .ltoreq. b/(a + b + c) < 1; 0 < (a + b)/(a + b + c) <1; 0 < c/(a + b + c) < 0.8]. Resists containing the polymers or chemical-amplified

pos.-working resists containing the polymers, organic solvents, acid generators, and optionally basic compds. and/or dissoln. inhibitors, are claimed. A pattern is formed by applying the resists on a substrate, heating, exposing with .ltoreq.300 nm-high-energy rays or electron beam through a photomask, heating optionally, and developing with a solution The exposure wavelength may be 100-180 nm-vacuum UV ray or 1-30 nm-soft x-ray or electron beam. The resists show high sensitivity and resolution to .ltoreq.190 nm-energy rays and plasma etching resistance.

ST fluoropolymer resist pattern formation high energy ray; chem amplified pos working resist fluoropolymer; resist fluoropolymer electron beam x ray UV exposure; fluorinated styrene deriv acrylic polymer photoresist; acid unstable group polymer photoresist

IT Positive photoresists
(UV; polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT Electron beam resists
X-ray resists
(pos.-working; polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT 258342-00-6 342809-21-6
RL: CAT (Catalyst use); USES (Uses)
(acid generator; polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT 139254-88-9
RL: MOA (Modifier or additive use); USES (Uses)
(dissoln. inhibitor; polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT 445281-08-3P 445281-10-7P **445281-11-8P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT 102-71-6, Triethanolamine, uses 102-82-9, Tributylamine 211919-60-7
RL: MOA (Modifier or additive use); USES (Uses)
(polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

IT **445281-11-8P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers having fluorinated styrene derivative units and acid-unstable groups for pos.-working resists and pattern formation)

RN 445281-11-8 HCAPLUS

CN Butanoic acid, 4,4,4-trifluoro-3-hydroxy-2-methylene-3-(trifluoromethyl)-, 1-ethylcyclopentyl ester, polymer with ethenylpentafluorobenzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

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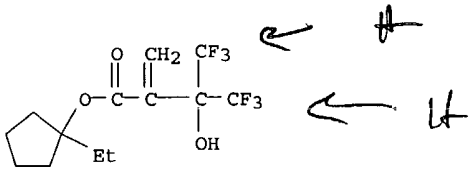
CRN 415683-20-4
CMF C13 H16 F6 O3



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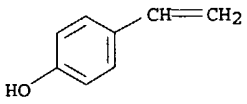
CRN 2628-17-3
CMF C8 H8 O



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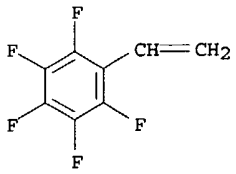
CRN 653-34-9
CMF C8 H3 F5



L15 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:315396 HCAPLUS
DN 136:332786
ED Entered STN: 26 Apr 2002
TI Polymers, resist compositions and patterning process
IN Harada, Yuji; **Hatakeyama, Jun**; Watanabe, Jun; Kawai, Yoshio; Sasago, Masaru; Endo, Masayuki; Kishimura, Shinji; Ootani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko
PA **Shin-Etsu Chemical** Co., Ltd., Japan; Matsushita Electrical Industrial Co., Ltd.; Central Glass Co., Ltd.
SO U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03F007-004
ICS G03F007-26; C08J003-28
NCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002048724	A1	20020425	US 2001-947764	20010907
	US 6511787	B2	20030128		
	JP 2002155112	A2	20020528	JP 2001-266846	20010904
PRAI	JP 2000-271234	A	20000907		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002048724	ICM	G03F007-004
	ICS	G03F007-26; C08J003-28
	NCL	430270100
US 2002048724	ECLA	G03F007/004F; G03F007/039C1S

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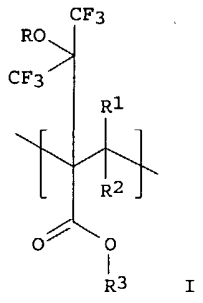


I

AB The present invention relates to an acrylic resin I (R = H, acid labile group, alkyl, C1-20 fluorinated alkyl, acyl, acyl having fluorinated alkyl moiety; R1,2 = H, F; R3 = acid labile group, adhesive group, alkyl, C1-20 fluorinated alkyl) which has high transmittance to VUV radiation. The invention provides a resist composition using the acrylic resin as a base polymer which has high transparency, substrate adhesion, alkali develop-ability and acid-elimination capability and is suited for lithog. microprocessing.

ST photoresist patterning photolithog resin

IT Photolithography
(UV; polymers for photoresist compns. and patterning process)

IT Photoresists
(polymers for photoresist compns. and patterning process)

IT 109-92-2DP, Ethyl vinyl ether, reaction product with hydroxyl group containing polymer **415683-21-5P 415683-23-7P 415683-25-9P 415683-26-0P 415683-27-1P 415683-30-6P** 415683-32-8DP, reaction product with Et vinyl ether 415683-33-9P **415683-34-0P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers for photoresist compns. and patterning process)

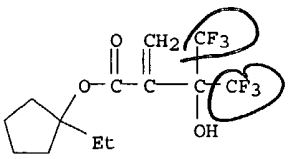
IT **415683-21-5P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers for photoresist compns. and patterning process)

RN 415683-21-5 HCAPLUS

CN Butanoic acid, 4,4,4-trifluoro-3-hydroxy-2-methylene-3-(trifluoromethyl)-, 1-ethylcyclopentyl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

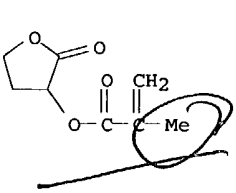
CM 1

CRN 415683-20-4
CMF C13 H16 F6 O3



CM 2

CRN 195000-66-9
CMF C8 H10 O4



L15 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:367047 HCAPLUS
DN 133:18002
ED Entered STN: 02 Jun 2000
TI Ester monomers, polymers, resist compositions and patterning process
IN **Kinsho, Takeshi**; Nishi, Tsunehiro; Kurihara, Hideshi; Hasegawa, Koji; **Watanabe, Takeru**; Watanabe, Osamu; Nakashima, Mutsuo; Takeda, Takanobu; **Hatakeyama, Jun**
PA **Shin-Etsu Chemical** Co., Ltd., Japan
SO Eur. Pat. Appl., 65 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07C069-54
ICS G03F007-039; C08F020-06
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1004568	A2	20000531	EP 1999-308687	19991102
	EP 1004568	A3	20010228		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000336121	A2	20001205	JP 1999-307148	19991028
	KR 2000035130	A	20000626	KR 1999-47904	19991101
	US 6312867	B1	20011106	US 1999-431139	19991101
	JP 2004062175	A2	20040226	JP 2003-168885	20030613
	JP 2004124082	A2	20040422	JP 2003-208773	20030826
PRAI	JP 1998-312533	A	19981102		
	JP 1999-75355	A	19990319		
	JP 1999-307148	A3	19991028		
	JP 2003-168885	A3	19991028		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1004568	ICM	C07C069-54
	ICS	G03F007-039; C08F020-06
JP 2004062175	FTERM	2H025/AA02; 2H025/AA03; 2H025/AB16; 2H025/AC04; 2H025/AC06; 2H025/AC08; 2H025/AD03; 2H025/BE00; 2H025/BE10; 2H025/BG00; 2H025/CB08; 2H025/CB14; 2H025/CB16; 2H025/CB17; 2H025/CB41; 2H025/CB45; 2H025/CB55; 2H025/CB56; 2H025/CC20; 2H025/FA17; 4J100/AB02Q; 4J100/AB07Q; 4J100/AJ02Q; 4J100/AK32Q; 4J100/AL03Q; 4J100/AL08P; 4J100/AL08Q; 4J100/AL09Q; 4J100/AL31P; 4J100/AR11Q; 4J100/BA02P; 4J100/BA03Q; 4J100/BA11Q; 4J100/BA15Q; 4J100/BA16Q; 4J100/BA22Q; 4J100/BC04Q; 4J100/BC08P; 4J100/BC08Q; 4J100/BC09Q; 4J100/BC12P; 4J100/BC27P; 4J100/BC43P; 4J100/BC49P; 4J100/BC53Q; 4J100/BC59Q; 4J100/CA04; 4J100/CA05; 4J100/CA06; 4J100/DA01; 4J100/JA38
JP 2004124082	FTERM	2H025/AA01; 2H025/AA02; 2H025/AA09; 2H025/AB16; 2H025/AC08; 2H025/AD01; 2H025/BE00; 2H025/BE10; 2H025/BG00; 2H025/CB10; 2H025/CB14; 2H025/CB41; 4H006/AA01; 4H006/AA02; 4H006/AA03; 4H006/AB46; 4H006/AC30; 4H006/AC41; 4H006/AC48; 4H006/BJ30; 4H006/BP10; 4J100/AB07Q; 4J100/AB07R; 4J100/AB07S; 4J100/AJ02R; 4J100/AL03S; 4J100/AL08P; 4J100/AL08Q; 4J100/AL08R; 4J100/AL08S; 4J100/BA02S; 4J100/BA03R; 4J100/BA16R; 4J100/BA22R; 4J100/BC03Q; 4J100/BC04R; 4J100/BC04S; 4J100/BC08P; 4J100/BC08R; 4J100/BC09Q; 4J100/BC12P; 4J100/BC53Q; 4J100/BC53S; 4J100/BC60Q; 4J100/CA04; 4J100/CA05; 4J100/CA06; 4J100/JA38

AB An ester compound having an exo-form 2-alkylbicyclo[2.2.1]heptan-2-yl group as the protective group is provided as well as a polymer comprising units of the ester compound The polymer is used as a base resin to formulate a resist composition having a higher sensitivity, resolution and etching resistance than conventional resist compns. A polymer was prepared from 8-ethyltricyclo[5.2.1.02,6]decan-8-yl methacrylate and 5-methyl-2-oxooxolan-5-yl methacrylate.

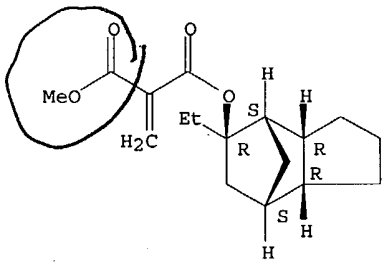
ST bicycloheptanyl methacrylate polymer resist
IT Polymerization
(anionic; ester monomers, polymers, resist compns. and patterning process)
IT Polymerization
(coordination; ester monomers, polymers, resist compns. and patterning

process)
IT Resists
(ester monomers, polymers, resist compns. and patterning process)
IT Polymerization
(radical; ester monomers, polymers, resist compns. and patterning process)
IT 119183-99-2P 271598-63-1P 271598-64-2P 271598-65-3P 271598-66-4P
271598-67-5P 271598-68-6P 271598-69-7P 271598-70-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(ester monomers, polymers, resist compns. and patterning process)
IT 155040-27-0P 177034-75-2P 195154-78-0P 195154-83-7P 258871-96-4P
271598-71-1P 271598-72-2P 271598-73-3P 271598-74-4P 271598-75-5P
271598-76-6P 271598-78-8P 271598-81-3P 271598-84-6P 271598-86-8P
271598-89-1P **271598-91-5P** 271598-94-8P 271598-97-1P
271599-00-9P 271599-03-2P 271599-06-5P 271599-09-8P 271599-11-2P
271599-14-5P 271599-16-7P 271599-18-9P 271599-21-4P 271599-24-7P
271599-26-9P 271599-28-1P 271599-30-5P 271599-32-7P 271599-33-8P
271599-34-9P 271599-35-0P 271599-36-1P 271599-37-2P 271599-38-3P
271599-39-4P 271599-40-7P 271599-41-8P 271599-42-9P 271599-43-0P
271599-44-1P 271599-45-2P 271599-46-3P 271599-47-4P 271599-48-5P
271599-49-6P 271599-50-9P 271599-51-0P 271599-52-1P 271599-53-2P
271599-54-3P 271599-55-4P 271599-56-5P 271599-57-6P 271599-59-8P
271599-60-1P 271599-61-2P 271779-09-0P 271779-10-3P 271779-11-4P
271779-12-5P 271779-13-6P 271779-14-7P 271779-15-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ester monomers, polymers, resist compns. and patterning process)
IT 74-96-4, Ethyl bromide 497-38-1, Bicyclo[2.2.1]heptan-2-one 920-46-7
13380-94-4, Tricyclo[5.2.1.02,6]decan-8-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(ester monomers, polymers, resist compns. and patterning process)
IT **271598-91-5P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ester monomers, polymers, resist compns. and patterning process)
RN 271598-91-5 HCAPLUS
CN Propanedioic acid, methylene-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl methyl ester, rel-, polymer with tetrahydro-2-methyl-5-oxo-2-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

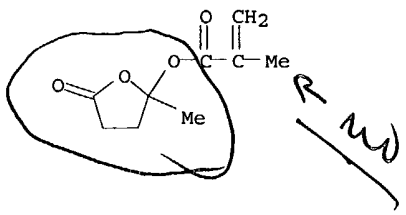
CRN 271598-90-4
CMF C17 H24 O4

Relative stereochemistry.



CM 2

CRN 220196-47-4
CMF C9 H12 O4



Search done by Noble Jarrell

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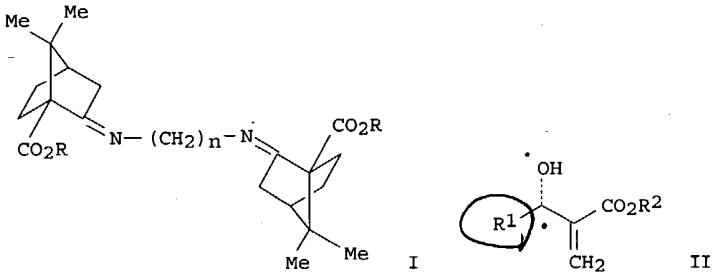
L18 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:739941 HCAPLUS
DN 141:243058
ED Entered STN: 10 Sep 2004
TI Preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions
IN Chen, Kwunmin; Yang, Kung-shou; Lee, Wei-der; Pan, Jia-fu
PA Taiwan
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM C07F001-00
ICS B01J031-00
NCL 502162000; 556032000; 546002000; 548101000; 564147000
CC 23-17 (Aliphatic Compounds)
Section cross-reference(s): 30, 78
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004176243	A1	20040909	US 2003-612609	20030701 <--
PRAI TW 2003-92104138	A	20030227		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004176243	ICM	C07F001-00
	ICS	B01J031-00
	NCL	502162000; 556032000; 546002000; 548101000; 564147000

OS MARPAT 141:243058
GI



I

II

No prior Art

AB Chiral chelating agents and chiral catalysts, e.g. I (R = H, Me, Et, primary, secondary or tertiary straight, branched or cyclic C3-7 alkyl; heterocyclic, ,(un)substituted aromatic, aromatic-like, naphthyl, or naphthyl-derived group; n = 0-4) which are formed from the chiral chelating agents and metal, are described. Thus I (n = 2, R = H) was prepared by condensation of (+)-ketopinic acid with ethylenediamine in CHCl3. The complex of I (n = 2, R = H) with La(OTf)3 was screened as catalysts for the asym. Baylis-Hillman reaction of aldehydes R1CHO (R1 = Ph, Me, Et, Me2CH, 4-MeOC6H4, 4-O2NC6H4, cyclohexyl, PhCH2CH2CH2) and acrylate esters H2C:CHCO2R2 (R2 = Me, CMe3, Ph, CH2Ph, 1-naphthyl) to give (S)-alcs. II in 35-97% yields and 6-95% e.e.
ST stereoselective Baylis Hillman reaction chiral chelating agent catalyst; lanthanide camphor deriv catalyst prepn stereoselective addn reaction; aldehyde stereoselective addn acrylate chiral lanthanide catalyst; ketopinic acid condensation diamine
IT Addition reaction
Addition reaction catalysts
(Baylis-Hillman, stereoselective; preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)
IT Cycloaddition reaction
Cycloaddition reaction catalysts
(aziridination, stereoselective; preparation of chiral chelating agent and chiral catalysts for stereoselective reactions)
IT Asymmetric synthesis and induction

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(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT Aldehydes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT Cyclopropanation
(preparation of chiral chelating agent and chiral catalysts for stereoselective reactions)

IT Cycloaddition reaction
Cycloaddition reaction catalysts
(stereoselective; preparation of chiral chelating agent and chiral catalysts for multiple types of stereoselective cycloaddn. reactions)

IT Addition reaction
Addition reaction catalysts
(stereoselective; preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT Aldol condensation
Aldol condensation catalysts
Amination
Amination catalysts
Aminohydroxylation
Aminohydroxylation catalysts
Cyclopropanation catalysts
Hydrogenation
Hydrogenation catalysts
Michael reaction
Michael reaction catalysts
Reduction
Reduction catalysts
(stereoselective; preparation of chiral chelating agent and chiral catalysts for stereoselective reactions)

IT 52093-25-1, Europium triflate 52093-26-2, Lanthanum triflate
54761-04-5, Ytterbium triflate
RL: CAT (Catalyst use); USES (Uses)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT 404582-34-9P 423770-46-1P
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT 404582-36-1P 423770-45-0P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

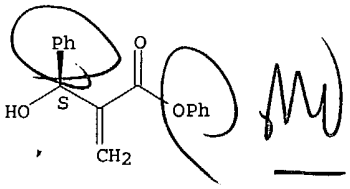
IT 75-07-0, Acetaldehyde, reactions 78-84-2, Isobutyraldehyde 96-33-3, Methyl acrylate 100-52-7, Benzaldehyde, reactions 107-15-3, Ethylenediamine, reactions 123-11-5, 4-Methoxybenzaldehyde, reactions 123-38-6, Propionaldehyde, reactions 555-16-8, 4-Nitrobenzaldehyde, reactions 937-41-7, Phenyl acrylate 1121-22-8, (.+-.)-trans-1,2-Diaminocyclohexane 1663-39-4, tert-Butyl acrylate 2043-61-0, Cyclohexanecarboxaldehyde 2495-35-4, Benzyl acrylate 18328-11-5, 4-Phenylbutanal 20069-66-3 40724-67-2, (+)-Ketopinic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT 108945-27-3P 112572-93-7P 140238-43-3P 189372-86-9P 221346-91-4P
293307-67-2P 500166-63-2P **500166-64-3P** 500166-65-4P
500166-66-5P 500166-67-6P 500166-68-7P **500166-69-8P**
500166-70-1P **500166-71-2P** **500166-72-3P**
500166-73-4P **753007-96-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

IT **500166-64-3P** **500166-69-8P** **500166-70-1P**
500166-71-2P **500166-72-3P** **500166-73-4P**
753007-96-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of chiral chelating agent and chiral catalysts for stereoselective addition reactions)

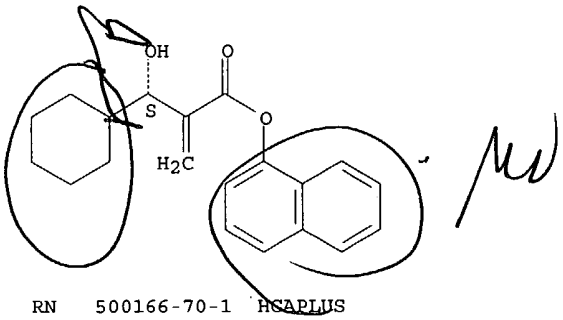
RN 500166-64-3 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-.alpha.-methylene-, phenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



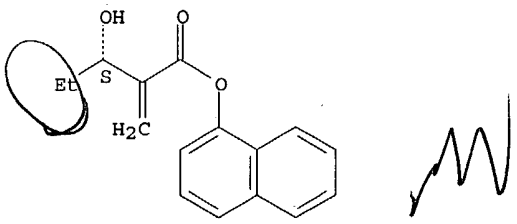
RN 500166-69-8 HCAPLUS
CN Cyclohexanepropanoic acid, .beta.-hydroxy-.alpha.-methylene-, 1-naphthalenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



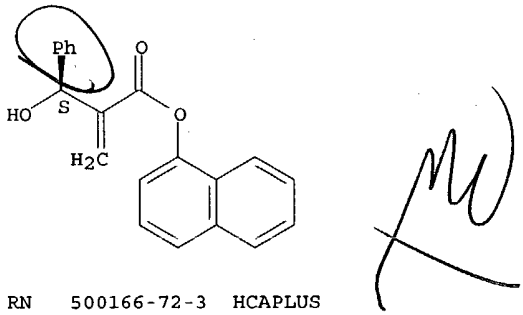
RN 500166-70-1 HCAPLUS
CN Pentanoic acid, 3-hydroxy-2-methylene-, 1-naphthalenyl ester, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



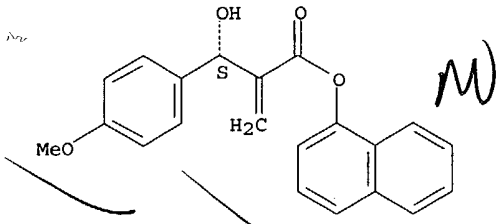
RN 500166-71-2 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-.alpha.-methylene-, 1-naphthalenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



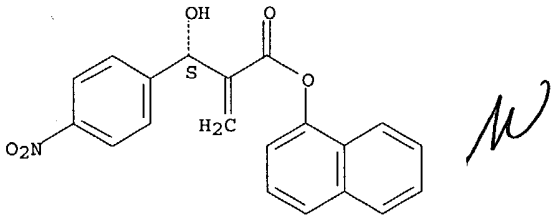
RN 500166-72-3 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-4-methoxy-.alpha.-methylene-, 1-naphthalenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



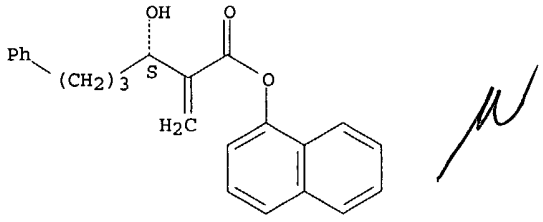
RN 500166-73-4 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-.alpha.-methylene-4-nitro-, 1-naphthalenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 753007-96-4 HCAPLUS
CN Benzenehexanoic acid, .beta.-hydroxy-.alpha.-methylene-, 1-naphthalenyl ester, (.beta.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L18 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:5107 HCAPLUS
DN 140:78186
ED Entered STN: 05 Jan 2004
TI Manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components
IN Moszner, Norbert; Salz, Ulrich; Zeuner, Frank; Zimmermann, Joerg; Rheinberger, Volker
PA Ivoclar Vivadent Ag, Liechtenstein
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM A61K006-083
ICS A61K006-00; C07F009-38
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 35, 63
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1374829	A1	20040102	EP 2003-14628	20030626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10228540	A1	20040122	DE 2002-10228540	20020626
DE 10234326	B3	20040205	DE 2002-10234326	20020726
US 2004077754	A1	20040422	US 2003-606142	20030625 <--

JP 2004131468 A2 20040430 JP 2003-183467 20030626
PRAI DE 2002-10228540 A 20020626
DE 2002-10234326 A 20020726

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1374829	ICM	A61K006-083
	ICS	A61K006-00; C07F009-38
EP 1374829	ECLA	A61K006/00B2; A61K006/083B1; C07F009/38A1; C08F020/58
DE 10228540	ECLA	A61K006/00B2; A61K006/083; A61K006/083B1; C08F020/58
US 2004077754	ECLA	A61K006/083; C07F009/38A1 <--
JP 2004131468	FTERM	4C089/AA01; 4C089/AA10; 4C089/BD01; 4C089/BD10; 4C089/BE03; 4C089/BE06; 4C089/CA03; 4C089/CA08; 4H050/AA01; 4H050/AA03; 4H050/AB46; 4J040/FA012; 4J040/FA092; 4J040/FA102; 4J040/FA132; 4J040/FA211; 4J040/FA292; 4J040/KA12; 4J040/KA23; 4J040/KA42; 4J040/MA15; 4J040/NA03; 4J100/AE13R; 4J100/AL03R; 4J100/AL08R; 4J100/AL66S; 4J100/AM15Q; 4J100/AM17R; 4J100/AM21Q; 4J100/AM21R; 4J100/AM23R; 4J100/AM24S; 4J100/AP07P; 4J100/AQ07S; 4J100/AQ08R; 4J100/BA02P; 4J100/BA03Q; 4J100/BA03R; 4J100/BA03S; 4J100/BA04R; 4J100/BA06R; 4J100/BA38S; 4J100/BA62P; 4J100/BC04P; 4J100/BC04S; 4J100/BC43P; 4J100/BC74S; 4J100/CA01; 4J100/CA04; 4J100/CA05; 4J100/CA06; 4J100/FA03; 4J100/FA19; 4J100/JA52

OS MARPAT 140:78186

AB Hydrolysis-resistant, polymerizable acrylic acids bearing .alpha.-phosphonoalkyl monoester groups A[O2CC(:CH2)CH2OZP(O)(OH)2]n [n = 1, 2; when n = 1 then A = (un)substituted cyclohexyl, (un)substituted Ph; when n = 2 then A = (un)substituted cyclohexylene, (un)substituted (bi)phenylene; Z = C1-6 alkylene] are useful as components in dental adhesives and cements. Thus, 20% solution of 2,4,6-Me3C6H2O2CC(:CH2)CH2OCH2CH2P(O)(OH)2 (I) (preparation by esterification of HO2CC(:CH2)CH2OCH2CH2P(O)(OMe)2 with mesitol followed by Me phosphonate ester cleavage with Me3SiBr/MeOH given) in 1:1 EtOH/D2O was stored for 2 mo at 37.degree. to show no change of 1H-NMR spectrum. A polymerized adhesive containing I 20, CH2:CHCONMeCH2CH2OH 13, initiator (unspecified) 7 and H2O 60% . gave adhesion of a dental composite to bovine dentin 11.0 .+-. 2.0 MPa.

ST acrylphosphonic acid polymer manuf dental adhesive; hydrolysis resistant acrylphosphonic acid monomer manuf; acrylic acid dihydroxyphosphorylethoxymethyl mesityl ester manuf polymn dental adhesive

IT Dental materials and appliances
(adhesives, dentin; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT Dental materials and appliances
(adhesives; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT Dental materials and appliances
(cements; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT 4370-80-3P 17225-73-9P 93801-76-4P 442200-41-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(adhesive; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT 527-60-6, Mesitol
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of acrylphosphonic acid derivative; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

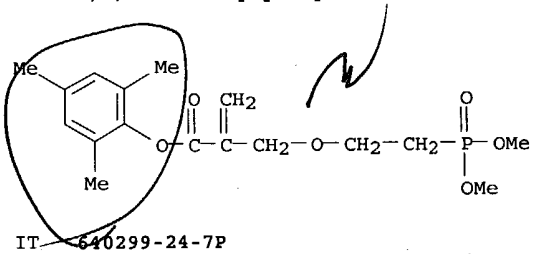
IT 349582-20-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification with mesitol; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT **640299-23-6P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and ether cleavage; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

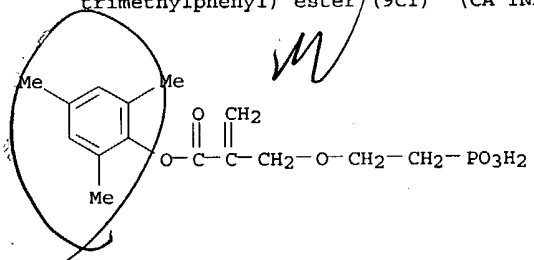
IT **640299-24-7P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(monomer; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

IT 2857-97-8, Trimethylsilyl bromide
RL: NUU (Other use, unclassified); USES (Uses)
(phosphonate ester cleavage agent; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Ivoclar Ag; DE 19746708 A 1999 HCAPLUS
(2) Ivoclar Vivadent Ag; EP 1148060 A 2001 HCAPLUS
(3) Ivoclar Vivadent Ag; EP 1222910 A 2002 HCAPLUS
IT **640299-23-6P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and ether cleavage; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)
RN 640299-23-6 HCAPLUS
CN 2-Propenoic acid, 2-[[2-(dimethoxyphosphinyl)ethoxy]methyl]-, 2,4,6-trimethylphenyl ester (9CI) (CA INDEX NAME)



IT **640299-24-7P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(monomer; manufacture of hydrolysis-resistant, polymerizable acrylphosphonic acids as dental material components)
RN 640299-24-7 HCAPLUS
CN 2-Propenoic acid, 2-[(2-phosphonoethoxy)methyl]-, 1-(2,4,6-trimethylphenyl) ester (9CI) (CA INDEX NAME)



L18 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:667432 HCAPLUS
DN 137:210918
ED Entered STN: 05 Sep 2002
TI Triterpene compositions and methods for use thereof
IN Arntzen, Charles J.; Blake, Mary E.; Gutterman, Jordan U.; Hoffmann, Joseph J.; Jayatilake, Gamini S.; Bailey, David T.
PA Research Development Foundation, USA
SO U.S., 120 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM A61K035-78
ICS A61K031-33
NCL 424725000
CC 1-6 (Pharmacology)
Section cross-reference(s): 11
FAN.CNT 2

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PI	US 6444233	B1	20020903	US 1999-314691	19990519	<--
	ZA 2000005936	A	20021009	ZA 2000-5936	20001024	
	US 2003039705	A1	20030227	US 2001-992837	20011116	<--
	US 6746696	B2	20040608			
	US 2003031738	A1	20030213	US 2001-720	20011130	<--
	US 2003054052	A1	20030320	US 2001-999495	20011130	<--
	US 6689398	B2	20040210			
	US 2003203049	A1	20031030	US 2002-238647	20020909	<--
PRAI	US 1998-85997P	P	19980519			
	US 1998-99066P	P	19980903			
	US 1999-314691	A1	19990519			
	US 2001-720	A3	20011130			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

US 6444233 ICM A61K035-78
ICS A61K031-33
NCL 424725000
US 2003039705 ECLA A61K031/70; A61K031/70N10P5; A61K035/78; A61K041/00P<--
US 2003031738 ECLA A61K031/70; A61K031/70N10P5; A61K035/78; A61K041/00P<--
US 2003054052 ECLA A61K031/70; A61K031/70N10P5; A61K035/78; A61K041/00P<--
US 2003203049 ECLA A61K031/70; A61K031/70N10P5; A61K035/78; A61K041/00P<--
OS MARPAT 137:210918
AB The invention provides novel saponin mixts. and compds. which are isolated from the species Acacia victoriae and methods for their use. These compds. may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixts. and compds. have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.
ST triterpene Acacia
IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(NF-.kappa.B (nuclear factor of .kappa. light chain gene enhancer in B-cells), activation; triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT Acacia victoriae
Antitumor agents
Apoptosis
Drug delivery systems
Human
Neoplasm
Signal transduction, biological
(triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT Triterpenes
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT 169592-56-7, Caspase 3
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(activation; triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT 9055-67-8, Poly-(ADP-ribose) polymerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(degradation; triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT 9007-43-6, Cytochrome c, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mitochondrial release; triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT 115926-52-8, Phosphatidylinositol-3-kinase 148640-14-6, AKT kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT **197787-17-0P 197787-20-5P 455323-90-7DP,**
oligosaccharide derivs.
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)
IT 455347-13-4 455347-14-5 455347-15-6 455347-16-7 455347-17-8
455347-18-9 455347-19-0 455347-20-3 455347-21-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; triterpene compns. and methods for use thereof)
RE.CNT 117 THERE ARE 117 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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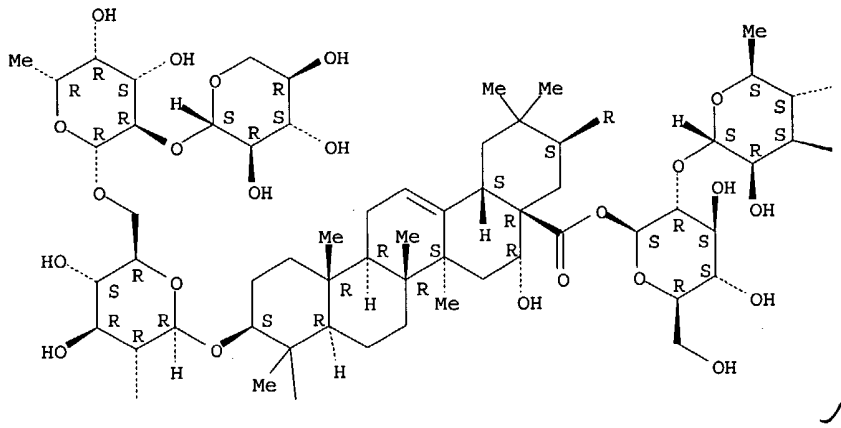
IT **197787-17-0P 197787-20-5P 455323-90-7DP,**
oligosaccharide derivs.
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(triterpene compns. from Acacia victoriae and use to regulate apoptosis and cytotoxicity of cells in relation to antitumor activity)

RN 197787-17-0 HCAPLUS

CN Olean-12-en-28-oic acid, 21-[[(2E,6R)-6-[[6-deoxy-4-O-[(2E,6R)-6-hydroxy-2,6-dimethyl-1-oxo-2,7-octadienyl]-.beta.-D-glucopyranosyl]oxy]-2-(hydroxymethyl)-6-methyl-1-oxo-2,7-octadienyl]oxy]-16-hydroxy-3-[[O-.beta.-D-xylopyranosyl-(1.fwdarw.2)-O-6-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.6)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, O-.alpha.-L-arabinofuranosyl-(1.fwdarw.4)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.3)]-O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-.beta.-D-glucopyranosyl ester, (3.beta.,16.alpha.,21.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



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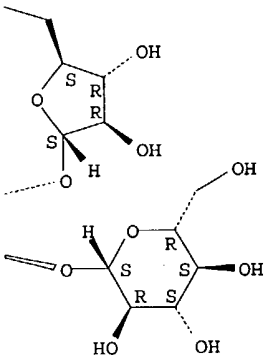
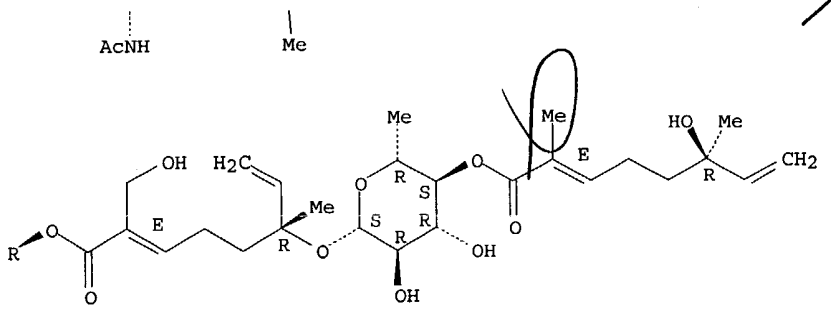


PAGE 2-A



RN 197787-20-5 HCAPLUS

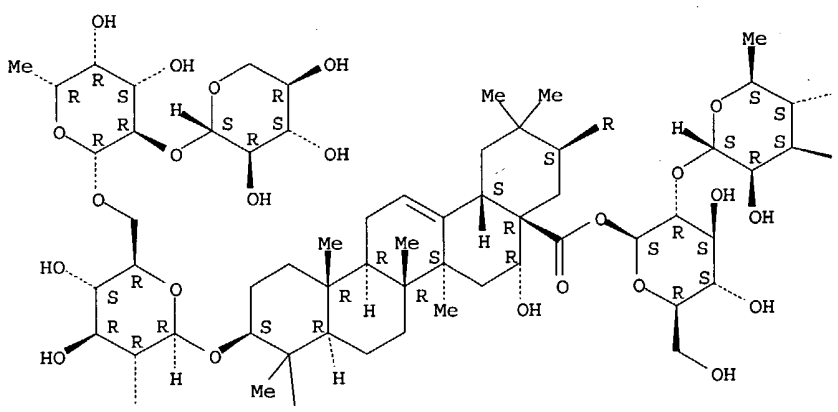
CN Olean-12-en-28-oic acid, 21-[[(2E,6R)-6-[[6-deoxy-4-O-[(2E,6R)-6-hydroxy-2-(hydroxymethyl)-6-methyl-1-oxo-2,7-octadienyl]-.beta.-D-glucopyranosyl]oxy]-2-(hydroxymethyl)-6-methyl-1-oxo-2,7-octadienyl]oxy]-16-hydroxy-3-[[O-.beta.-D-xylopyranosyl-(1.fwdarw.2)-O-6-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.6)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, O-.alpha.-L-arabinofuranosyl-(1.fwdarw.4)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.3)]-O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-.beta.-D-glucopyranosyl ester, (3.beta.,16.alpha.,21.beta.)-

Search done by Noble Jarrell

(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.

PAGE 1-A



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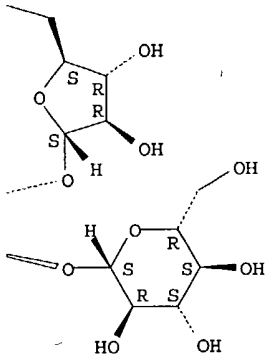
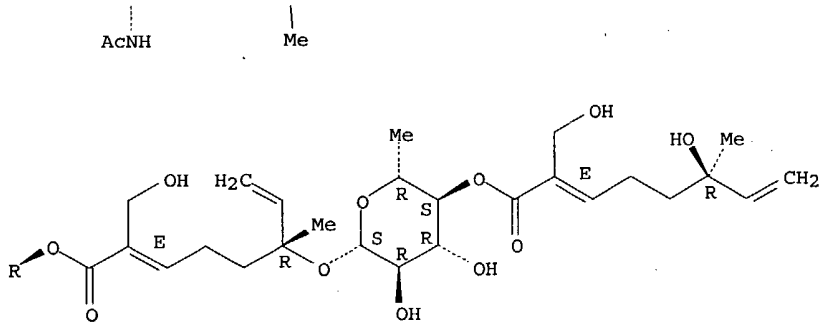


PAGE 2-A



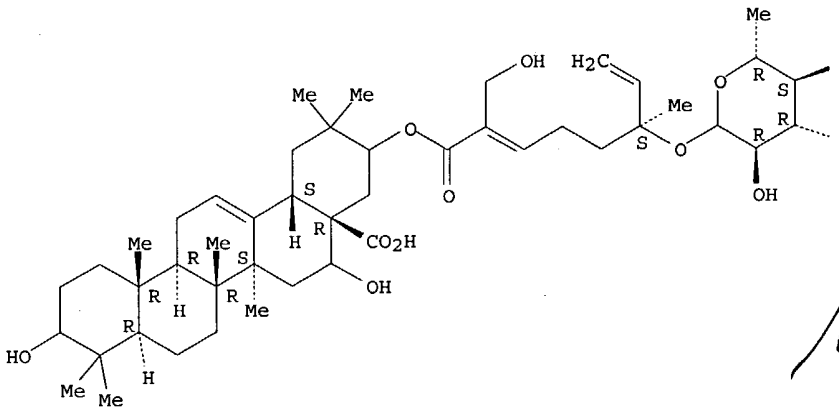
RN 455323-90-7 HCAPLUS
CN Olean-12-en-28-oic acid, 21-[[(6S)-6-[[6-deoxy-4-O-[6-hydroxy-2-(hydroxymethyl)-6-methyl-1-oxo-2,7-octadienyl]-D-glucopyranosyl]oxy]-2-(hydroxymethyl)-6-methyl-1-oxo-2,7-octadienyl]oxy]-3,16-dihydroxy- (9CI)

Search done by Noble Jarrell

(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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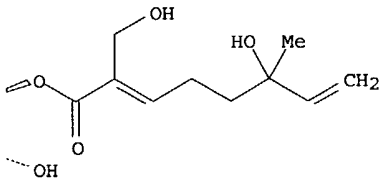


L18 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:538184 HCAPLUS
DN 137:116969
ED Entered STN: 19 Jul 2002
TI Positive image-forming material
IN Kunita, Kazuto; Sato, Kenichiro
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 115 pp.
CODEN: EPXXDW
DT **Patent**
LA English
IC ICM G03F007-039
ICS G03F007-023; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1223467	A2	20020717	EP 2002-237	20020114
	EP 1223467	A3	20030205		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002214785	A2	20020731	JP 2001-5178	20010112
	JP 2002309057	A2	20021023	JP 2001-115595	20010413
	CN 1365025	A	20020821	CN 2002-103198	20020112
	US 2003057610	A1	20030327	US 2002-43135	20020114 <--
	US 6716565	B2	20040406		
PRAI	JP 2001-5178	A	20010112		
	JP 2001-115595	A	20010413		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1223467	ICM	G03F007-039

Search done by Noble Jarrell

ICS G03F007-023; G03F007-004
EP 1223467 ECLA B41C001/10A; G03F007/021P; G03F007/023P; G03F007/039; B41M005/36S
US 2003057610 ECLA B41C001/10A; B41M005/36S; G03F007/021P; G03F007/023P; G03F007/039 <--

AB The present invention relates to a pos. image-forming material favorably usable as the so-called direct lithog. printing plate material capable of plate-making directly form digital signals in a computer with various kinds of lasers, or suitably usable as photoresist materials. The pos. image-forming material comprises a resin including a repeating unit corresponding to a specific monomer having an .alpha.-heteromethyl structure: RaRbX1C-C(=C)Q1 (Q1 = cyano (CN), COX2; X1,2 = hetero atom, halogen atom; Ra,b = H, halogen atom, cyano group, organic residual group).

ST lithog printing plate photoresist resin acid generator

IT Holography
Lithographic plates
Photoresists
(pos. image-forming material for)

IT 201024-57-9 384850-16-2
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbing dye; pos. image-forming material for lithog printing plate containing)

IT 79723-43-6 125604-88-8 304882-18-6
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator; pos. image-forming material for lithog printing plate containing)

IT 52411-04-8 68900-98-1 84563-49-5 101491-20-7 120504-13-4
127326-57-2 134127-48-3 442900-31-4 442900-32-5
RL: TEM (Technical or engineered material use); USES (Uses)
(dissoln. inhibitor; pos. image-forming material for lithog printing plate containing)

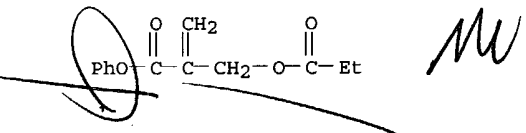
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 409332-98-5
409332-99-6 409333-02-4 442899-98-1 442899-99-2 **442900-01-8**
442900-02-9 442900-04-1 442900-05-2 442900-06-3 442900-07-4
442900-09-6 442900-11-0 442900-12-1 442900-13-2 442900-15-4
442900-17-6 442900-18-7 442900-19-8 442900-20-1 442900-22-3
442900-24-5 442900-26-7 442900-28-9 442900-30-3
RL: TEM (Technical or engineered material use); USES (Uses)
(resin; pos. image-forming material for lithog printing plate containing)

IT **442900-01-8**
RL: TEM (Technical or engineered material use); USES (Uses)
(resin; pos. image-forming material for lithog printing plate containing)

RN 442900-01-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with phenyl 2-[(1-oxopropoxy)methyl]-2-propenoate (9CI) (CA INDEX NAME)

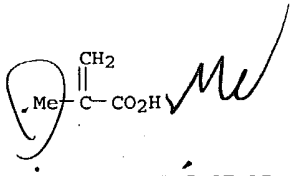
CM 1

CRN 442900-00-7
CMF C13 H14 O4



CM 2

CRN 79-41-4
CMF C4 H6 O2



L18 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:242854 HCAPLUS
DN 134:287884
ED Entered STN: 06 Apr 2001
TI Photopolymerizable resin composition with .alpha.-oxymethylcrylic monomer for directly imaging lithographic plate

IN Kunida, Kazuhito
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 97 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM G03F007-027
ICS C08F002-48; C08F016-24; G03F007-00; G03F007-028
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001092127	A2	20010406	JP 1999-268842	19990922
	EP 1091247	A2	20010411	EP 2000-119499	20000918
	EP 1091247	A3	20010425		
	EP 1091247	B1	20040825		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6476092	B1	20021105	US 2000-665685	20000920 <--
PRAI	JP 1999-268842	A	19990922		

CLASS

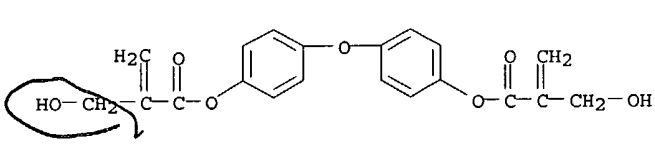
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001092127	ICM	G03F007-027
	ICS	C08F002-48; C08F016-24; G03F007-00; G03F007-028
EP 1091247	ECLA	B41C001/10A; B41M005/36S; C08F020/10; G03F007/027; G03F007/038S
US 6476092	ECLA	B41C001/10A; B41M005/36S; C08F020/10; G03F007/027; G03F007/038S <--

OS MARPAT 134:287884
AB The title photopolymerizable resin composition contains a photopolymn. initiator and photopolymerizable compound CH2=C(C(Ra)(Rb)(X1))(COOX2) (X1-2 = hetero atom, halo; Ra-b = H, halo, cyano, etc.). The resin composition, which contains .alpha.-oxymethylcrylic monomer, provides both the excellent sensitivity and the storage ability.
ST photopolymerizable resin compn contain oxymethylcrylic monomer imaging lithog plate
IT Light-sensitive materials
Lithographic plates
(photopolymerizable resin composition for directly imaging lithog. plate)
IT Phenolic resins, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with Me 2-(hydroxymethyl)acrylate; photopolymerizable resin composition for directly imaging lithog. plate)
IT 50-00-0, Formaldehyde, reactions 71-36-3, Butanol, reactions 75-36-5, Acetyl chloride 96-33-3, Methyl acrylate 100-39-0, Benzyl bromide 104-15-4, p-Toluenesulfonic acid, reactions 110-91-8, Morpholine, reactions 111-36-4, Butyl isocyanate 149-30-4, 2-Mercaptobenzothiazole 543-20-4, Butanedioyl dichloride 4422-95-1, Trimesoyl chloride 4986-89-4, Pentaerythritol tetraacrylate 13048-33-4, 1,6-Hexanediol diacrylate 72707-66-5, 2-(Bromomethyl)acrylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(photopolymerizable resin composition for directly imaging lithog. plate)
IT 15484-46-5P, 2-Propenoic acid, 2-(hydroxymethyl)-, methyl ester
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photopolymerizable resin composition for directly imaging lithog. plate)
IT 9003-35-4DP, Phenol-formaldehyde copolymer, reaction products with Me 2-(hydroxymethyl)acrylate 27316-13-8P 30982-08-2P, 2-Propenoic acid,2-[(acetyloxy)methyl]-,methyl ester 127261-89-6P 151314-53-3P, 2-Propenoic acid,2-methyl-,(benzoyloxy)methyl ester 170216-64-5P
333305-67-2P 333305-69-4P 333305-71-8P 333305-73-0P 333305-75-2P
333305-77-4P 333305-79-6P 333305-81-0P
333305-83-2P 333305-85-4P 333305-87-6P 333305-89-8P 333305-91-2P
333305-93-4P **333305-95-6P 333305-97-8P** 333305-99-0P
333306-01-7P 333306-03-9P 333306-05-1P 333306-07-3P 333306-09-5P
333306-11-9P 333306-13-1P 333306-15-3P 333306-17-5P 333306-18-6P
333306-21-1P 333306-24-4P 333306-28-8P 333306-31-3P 333306-34-6P
333306-36-8P 333306-38-0P 333306-40-4P 333306-42-6P 333306-44-8P
333331-74-1P, m-Cresol-p-cresol-formaldehyde copolymer ester with 2-(bromomethyl)acrylic acid
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

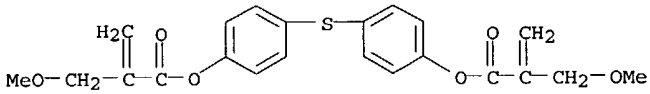
(photopolymerizable resin composition for directly imaging lithog. plate)

IT **333305-77-4P 333305-79-6P 333305-81-0P 333305-95-6P 333305-97-8P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photopolymerizable resin composition for directly imaging lithog. plate)

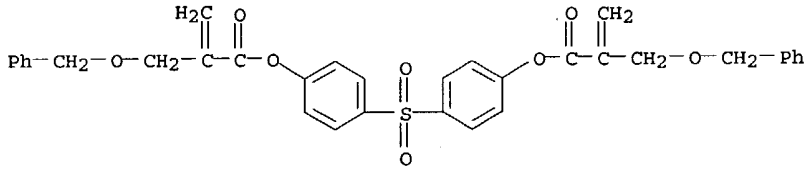
RN 333305-77-4 HCAPLUS
CN 2-Propenoic acid, 2-(hydroxymethyl)-, oxydi-4,1-phenylene ester (9CI) (CA INDEX NAME)



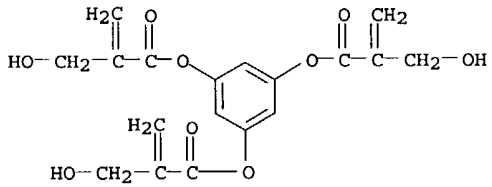
RN 333305-79-6 HCAPLUS
CN 2-Propenoic acid, 2-(methoxymethyl)-, thiodi-4,1-phenylene ester (9CI) (CA INDEX NAME)



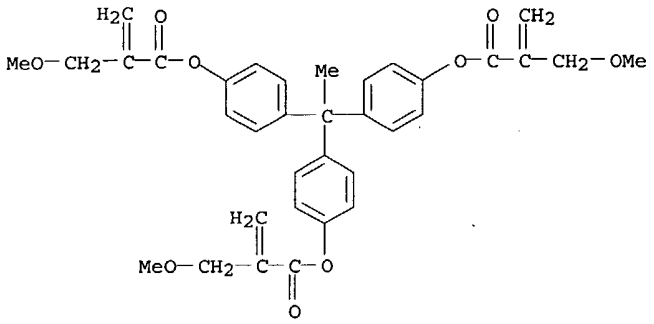
RN 333305-81-0 HCAPLUS
CN 2-Propenoic acid, 2-[(phenylmethoxy)methyl]-, sulfonyldi-4,1-phenylene ester (9CI) (CA INDEX NAME)



RN 333305-95-6 HCAPLUS
CN 2-Propenoic acid, 2-(hydroxymethyl)-, 1,3,5-benzenetriyl ester (9CI) (CA INDEX NAME)



RN 333305-97-8 HCAPLUS
CN 2-Propenoic acid, 2-(methoxymethyl)-, ethylidynetri-4,1-phenylene ester (9CI) (CA INDEX NAME)



L18 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:470405 HCAPLUS
DN 133:105930
ED Entered STN: 12 Jul 2000
TI Preparations and compositions of lithographic resists containing photosensitive polymers with cyclic ether backbone
IN Choi, Sang Joon; Chung, Dong Hang; Lee, Si Hyung
PA Samsung Electronics Co., Ltd., S. Korea
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM C08F220-18
ICS C08F236-20; C08K005-36; C08L033-06; G03F007-039; H01L021-027
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000191732	A2	20000711	JP 1999-364811	19991222
	KR 2000042004	A	20000715	KR 1998-58045	19981224
	TW 476022	B	20020211	TW 1999-88107907	19990515
	US 6287747	B1	20010911	US 1999-465926	19991217 <--
PRAI	KR 1998-58045	A	~~19981224~~		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000191732	ICM	C08F220-18
	ICS	C08F236-20; C08K005-36; C08L033-06; G03F007-039; H01L021-027

AB The chemical amplifiable photoresists suitable for micro-patterning by dry etching with ArF excimer laser beams in the semiconductor device fabrication, comprise a (meth)acrylic acid ester-based copolymer having cyclic ether units of CH2Z (Z = tetrahydropyran-3,5-diyl group bearing carboxylic acid esters on the 3- and 5-position, resp., provided that at least 1 of the esters is C7-20 alicyclic hydrocarbyl type) in the backbone and photoacid generator (PAG). Thus, heating diadamantyl 2,2'-(oxydimethylene)diacrylate 18.2 with diethoxyethyl 2,2'-(oxydimethylene)diacrylate 10.0 and methacrylic acid 2.6 g in THF in the presence of AIBN at reflux for .apprx.24 h gave a copolymer having cyclic ether units, weight-average mol. weight of 15,400 and polydispersity of 2.4. Dissolving the copolymer 1.0, triphenylsulfonium triflate (PAG) 0.02 and triisobutylamine 0.002 in propylene glycol monomethyl ether acetate 7 g, and filtering gave a photoresist which was coated on a silicon wafer to 0.45 .mu.m thickness, pre-baked at 110.degree. for 90 s, exposed with ArF excimer laser, post-exposure baked at 120.degree. for 90 s and developed with a 2.38% tetramethylammonium hydroxide solution to give line-and-space pattern of 0.30 .mu.m under an exposure dose of .apprx.17 mJ/cm2.

ST lithog resist photosensitive polymer cyclic ether unit; semiconductor device manuf dry etching resist chem amplification; photoresist dry etching ArF excimer laser photocurable methacrylate copolymer; adamantyl methacrylate ether dimer copolymer photoresist

IT Excimer lasers
(ArF; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT Ethers, uses
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use);

PREP (Preparation); PROC (Process); USES (Uses)
(cyclic, polymers; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT Sulfonium compounds
RL: CAT (Catalyst use); USES (Uses)
(photoacid generator; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT Etching
Photoresists
Resists
Semiconductor device fabrication
(prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT Acids, uses
RL: CAT (Catalyst use); USES (Uses)
(strong; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT Amines, uses
RL: CAT (Catalyst use); USES (Uses)
(tertiary, crosslinking co-catalyst; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT 102-71-6, uses 111-42-2, uses 121-44-8, uses 1116-40-1, Triisobutylamine 25549-16-0, Triisooctylamine
RL: CAT (Catalyst use); USES (Uses)
(crosslinking co-catalyst; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT 34684-40-7, N-Hydroxysuccinimide triflate 66003-76-7, Diphenyliodonium triflate 66003-78-9, Triphenylsulfonium triflate 144317-44-2, Triphenylsulfonium nonaflate 157959-61-0 162845-55-8, Triphenylsulfonium antimonate 168706-59-0 259229-69-1 259229-70-4D, salts
RL: CAT (Catalyst use); USES (Uses)
(photoacid generator; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT 142-68-7DP, Tetrahydropyran, derivs., polymers
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT **254109-23-4P**, Diadamantyl 2,2'-(oxydimethylene)diacrylate-di-tert-butyl 2,2'-(oxydimethylene)diacrylate copolymer **282118-22-3P** **282118-23-4P** **282118-24-5P** **282118-25-6P** **282118-26-7P** **282118-27-8P** **282118-28-9P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

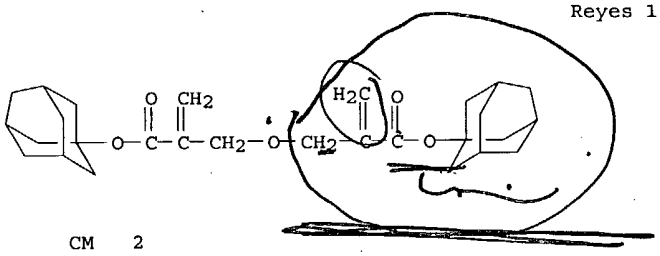
IT 1663-39-4 5888-33-5, Isobornyl acrylate 30525-89-4, Paraformaldehyde 52351-91-4, 1-Ethoxyethyl acrylate 121601-93-2, 1-Adamantyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

IT **254109-23-4P**, Diadamantyl 2,2'-(oxydimethylene)diacrylate-di-tert-butyl 2,2'-(oxydimethylene)diacrylate copolymer **282118-22-3P** **282118-23-4P** **282118-24-5P** **282118-25-6P** **282118-26-7P** **282118-27-8P** **282118-28-9P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepns. and compns. of lithog. resists containing photosensitive polymers with cyclic ether backbone)

RN 254109-23-4 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1,1-dimethylethyl) ester, polymer with bis(tricyclo[3.3.1.13,7]dec-1-yl) 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

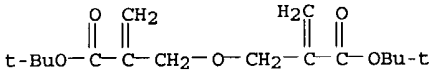
CM 1

CRN 149513-35-9
CMF C28 H38 O5



CM 2

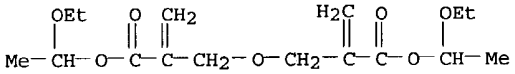
CRN 129743-64-2
CMF C16 H26 O5



RN 282118-22-3 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1-ethoxyethyl) ester, polymer with bis(tricyclo[3.3.1.13,7]dec-1-yl) 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

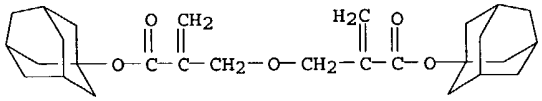
CM 1

CRN 282118-21-2
CMF C16 H26 O7



CM 2

CRN 149513-35-9
CMF C28 H38 O5



RN 282118-23-4 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1-ethoxyethyl) ester, polymer with rel-bis[(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl] 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

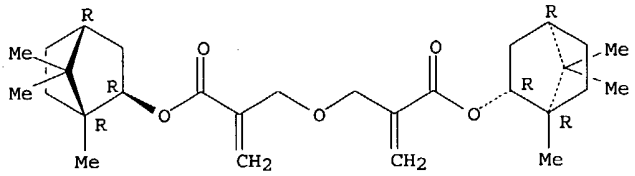
CM 1

CRN 282118-21-2
CMF C16 H26 O7

CM 2

CRN 157646-99-6
CMF C28 H42 O5

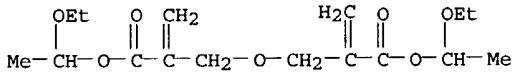
Relative stereochemistry.



RN 282118-24-5 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1-ethoxyethyl) ester, polymer with bis(tricyclo[3.3.1.13,7]dec-1-yl) 2,2'-[oxybis(methylene)]bis[2-propenoate] and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

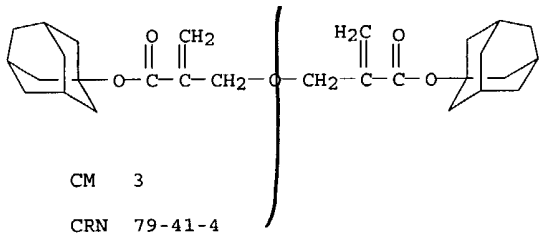
CM 1

CRN 282118-21-2
CMF C16 H26 O7



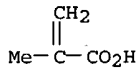
CM 2

CRN 149513-35-9
CMF C28 H38 O5



CM 3

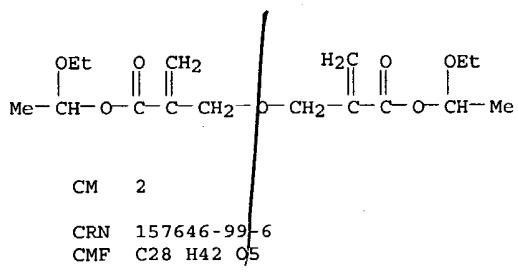
CRN 79-41-4
CMF C4 H6 O2



RN 282118-25-6 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1-ethoxyethyl) ester, polymer with rel-bis[(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl] 2,2'-[oxybis(methylene)]bis[2-propenoate] and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

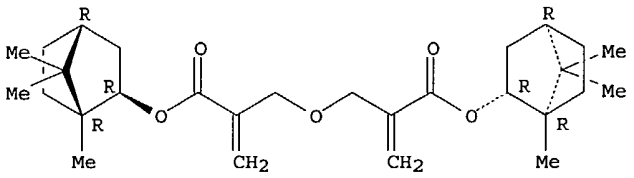
CRN 282118-21-2
CMF C16 H26 O7



CM 2

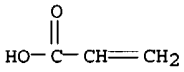
CRN 157646-99-6
CMF C28 H42 O5

Relative stereochemistry.



CM 3

CRN 79-10-7
CMF C3 H4 O2

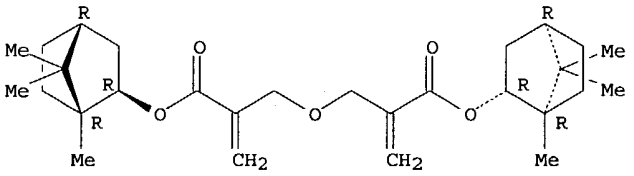


RN 282118-26-7 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis[(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl] ester, rel-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

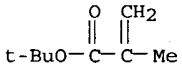
CRN 157646-99-6
CMF C28 H42 O5

Relative stereochemistry.



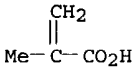
CM 2

CRN 585-07-9
CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2

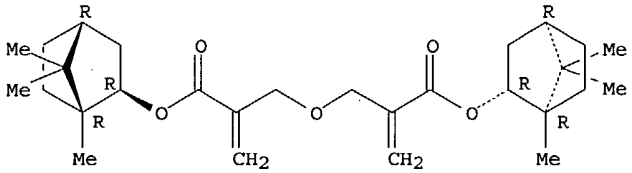


RN 282118-27-8 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis[(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl] ester, rel-, polymer with 2-methyl-2-propenoic acid and tetrahydro-2H-pyran-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

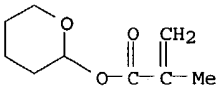
CRN 157646-99-6
CMF C28 H42 O5

Relative stereochemistry.



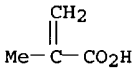
CM 2

CRN 52858-59-0
CMF C9 H14 O3



CM 3

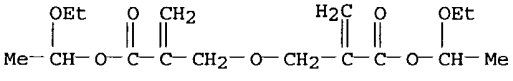
CRN 79-41-4
CMF C4 H6 O2



RN 282118-28-9 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1-ethoxyethyl) ester, polymer with rel-bis[(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl] 2,2'-[oxybis(methylene)]bis[2-propenoate], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

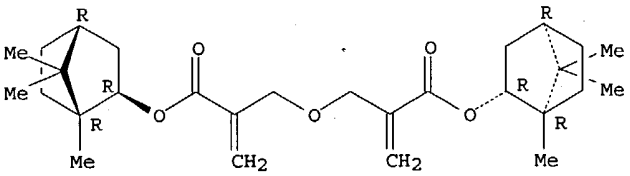
CRN 282118-21-2
CMF C16 H26 O7



CM 2

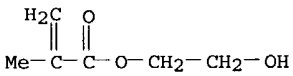
CRN 157646-99-6
CMF C28 H42 O5

Relative stereochemistry.



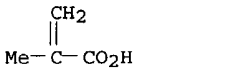
CM 3

CRN 868-77-9
CMF C6 H10 O3



CM 4

CRN 79-41-4
CMF C4 H6 O2



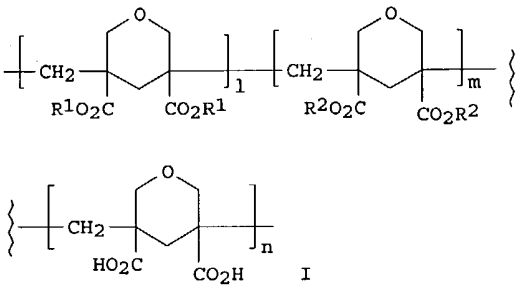
L18 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:23745 HCAPLUS
DN 132:100445
ED Entered STN: 12 Jan 2000
TI Light-sensitive polymer having cyclic main chain for chemically amplified resist composition
IN Choi, Sang Joon
PA Samsung Electronics Co., Ltd., S. Korea
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM C08F120-30
ICS G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000007730	A2	20000111	JP 1998-350530	19981209
	KR 2000000652	A	20000115	KR 1998-20395	19980602
	TW 473651	B	20020121	TW 1998-87115318	19980915
	US 6080524	A	20000627	US 1999-251158	19990217 <--
PRAI	KR 1998-20395	A	19980602		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000007730	ICM	C08F120-30
	ICS	G03F007-039; H01L021-027

GI



I

AB The light-sensitive polymer having a cyclic main chain for a chemical amplified resist composition has structure I (R1 = C1-20 aliphatic hydrocarbon; R2 = t-Bu, tetrahydropyranyl, 1-alkoxy ethyl; 0.2.ltoreq.l/(l+m+n) .ltoreq.0.5, 0.2.ltoreq.m/(l+m+n) .ltoreq.0.5, 0.0.ltoreq.n/(l+m+n) .ltoreq.0.4). The polymer provides the excellent dry-etching resistance and the superior lithog. characteristics.

ST light sensitive polymer cyclic main chain resist compn

IT Photoresists
(light-sensitive polymer having cyclic main chain for resist composition)

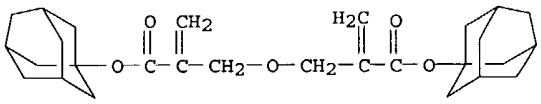
IT 1663-39-4P, tert-Butyl acrylate 111964-98-8P 129743-64-2P
132698-97-6P **149513-35-9P 254109-23-4P**
254109-24-5P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(light-sensitive polymer having cyclic main chain for resist composition)

IT 30525-89-4, Paraformaldehyde 121601-93-2, 1-Adamantyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(light-sensitive polymer having cyclic main chain for resist composition)

IT **149513-35-9P 254109-23-4P 254109-24-5P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(light-sensitive polymer having cyclic main chain for resist composition)

RN 149513-35-9 HCAPLUS

CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(tricyclo[3.3.1.13,7]dec-1-yl) ester (9CI) (CA INDEX NAME)

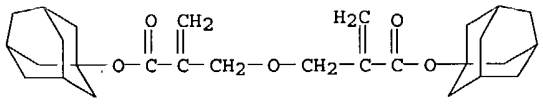


RN 254109-23-4 HCAPLUS

CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(1,1-dimethylethyl) ester, polymer with bis(tricyclo[3.3.1.13,7]dec-1-yl) 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

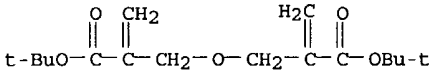
CM 1

CRN 149513-35-9
CMF C28 H38 O5



CM 2

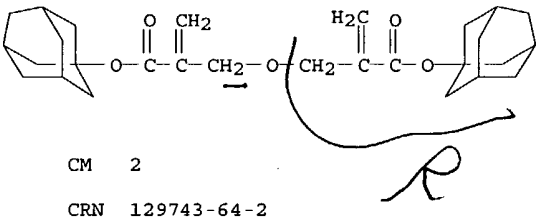
CRN 129743-64-2
CMF C16 H26 O5



RN 254109-24-5 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, polymer with bis(1,1-dimethylethyl) 2,2'-[oxybis(methylene)]bis[2-propenoate] and bis(tricyclo[3.3.1.13,7]dec-1-yl) 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

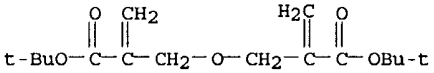
CM 1

CRN 149513-35-9
CMF C28 H38 O5



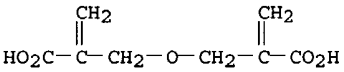
CM 2

CRN 129743-64-2
CMF C16 H26 O5



CM 3

CRN 111964-98-8
CMF C8 H10 O5



L18 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:293542 HCAPLUS
DN 129:16876
ED Entered STN: 20 May 1998
TI Lowly birefringent polymers, and optical pickup lenses, light diffusers, lamp lenses, resin compns., optical disks and substrates, optical fibers, light guide material, polycarbonate sheets containing the same and manufacture thereof
IN Yanagase, Akira; Tone, Seiji; Tokimitsu, Toru
PA Mitsubishi Rayon Co., Ltd., Japan; Yanagase, Akira; Tone, Seiji; Tokimitsu, Toru
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT **Patent**
LA Japanese
IC ICM C08F220-26
ICS C08L033-04; B32B027-30; G02B001-04; G02B001-10; G02B005-00; G02B006-10; G02B006-16; G11B007-135; G11B007-24
CC 38-3 (Plastics Fabrication and Uses)
FAN.CNT 1

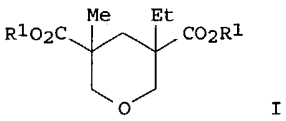
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9818836	A1	19980507	WO 1997-JP3930	19971029
W: CN, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10338720	A2	19981222	JP 1997-112560	19970430
EP 936227	A1	19990818	EP 1997-909674	19971029

	EP 936227	B1	20020731		
	R: DE, FR, GB, IT, NL				
	CN 1238787	A	19991215	CN 1997-180049	19971029
	US 6262214	B1	20010717	US 1999-297062	19990429 <--
PRAI	JP 1996-286821	A	19961029		
	JP 1997-91177	A	19970409		
	WO 1997-JP3930	W	19971029		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9818836	ICM	C08F220-26
	ICS	C08L033-04; B32B027-30; G02B001-04; G02B001-10; G02B005-00; G02B006-10; G02B006-16; G11B007-135; G11B007-24

GI



I

AB The title polymers having excellent transparency, heat and water resistance, and mech. strength are substantially composed of repeating units I and (meth)acrylate ester repeating units, wherein R1 = H, C1-25 hydrocarbon group, an alicyclic hydrocarbon group or a substituted hydrocarbon group. Dicyclohexyl 2,2'-[oxybis(methylene)]bis-2-propenoate was prepared from cyclohexyl acrylate and paraformaldehyde and copolymd. 40:60 with Me methacrylate to obtain a copolymer with Mn 48,000, Mw/Mn 2.01, saturation water absorption 1.0%, total light transmittance 92%, birefringence 0-15 nm, and Vicat softening point 122.degree..

ST polymer low birefringence; optical disk pickup lens polymer; light diffuser polymer; fiber optical polymer; polycarbonate blend

IT Silicone rubber, uses
Silicone rubber, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-; lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Electric lamps
(lenses; lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Lenses
Optical disks
Transparent materials
Waveguides
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Molded plastics, uses
Polymer blends
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Polycarbonates, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Optical fibers
(polymeric; lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT Acrylic rubber
Acrylic rubber
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(siloxane-; lowly birefringent polymers, and optical pickup lenses and

other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 12542-30-2, Dicyclopentadienyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(Fancryl 511A; lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT **153775-87-2P 207574-57-0P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 109669-53-6P **152234-19-0P 207502-45-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 109669-57-0P **207130-19-6P** 207130-20-9P 207502-46-3P
207574-58-1P **207574-59-2P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 96-33-3 3066-71-5, Cyclohexyl acrylate 7398-56-3, Fancryl 513A
30525-89-4, Paraformaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 9011-14-7, PMMA 108232-55-9
RL: TEM (Technical or engineered material use); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

IT 172502-14-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(rubber; lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Basf Ag; US 5247035 A 1993 HCAPLUS
(2) Basf Ag; EP 552603 A1 1993 HCAPLUS
(3) Mathias, L; Polym Prepr 1988, V29(1), P329 HCAPLUS
(4) University Of Southern Mississippi; US 4889948 A 1989 HCAPLUS

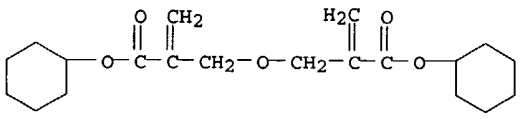
IT **153775-87-2P 207574-57-0P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)

RN 153775-87-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dicyclohexyl 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

CM 1

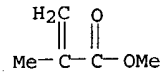
CRN 152234-19-0
CMF C20 H30 O5



CM 2

CRN 80-62-6

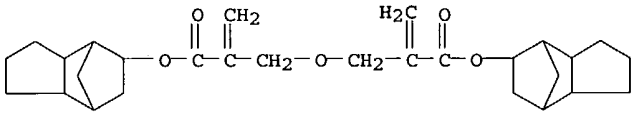
CMF C5 H8 O2



RN 207574-57-0 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(octahydro-4,7-methano-1H-inden-5-yl) ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

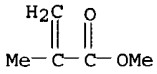
CM 1

CRN 207502-45-2
CMF C28 H38 O5

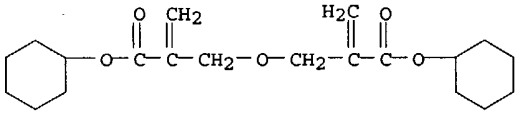


CM 2

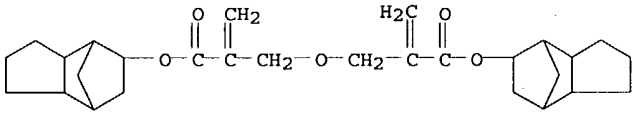
CRN 80-62-6
CMF C5 H8 O2



IT **152234-19-0P 207502-45-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)
RN 152234-19-0 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester (9CI) (CA INDEX NAME)



RN 207502-45-2 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(octahydro-4,7-methano-1H-inden-5-yl) ester (9CI) (CA INDEX NAME)

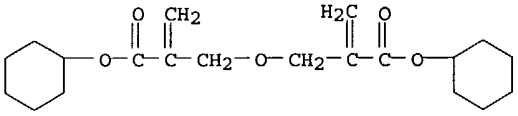


IT **207130-19-6P 207574-59-2P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lowly birefringent polymers, and optical pickup lenses and other optical materials, polycarbonate sheets containing the same and manufacture thereof)
RN 207130-19-6 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester,

homopolymer (9CI) (CA INDEX NAME)

CM 1

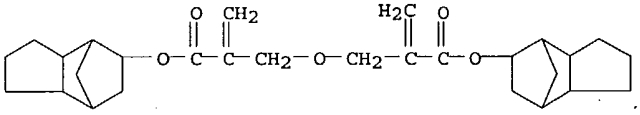
CRN 152234-19-0
CMF C20 H30 O5



RN 207574-59-2 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, bis(octahydro-4,7-methano-1H-inden-5-yl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 207502-45-2
CMF C28 H38 O5



L18 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:801435 HCAPLUS
DN 124:55417
ED Entered STN: 20 Sep 1995
TI Asymmetric hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compounds.
IN Challenger, Stephen
PA Pfizer Ltd., UK
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT **Patent**
LA English
IC ICM C07C069-757
ICS C07C067-303; C07C235-40; C07C231-12
CC 24-4 (Alicyclic Compounds)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 644176	A1	19950322	EP 1993-307517	19930922	
	EP 644176	B1	19951115			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
	AT 130292	E	19951215	AT 1993-307517	19930922	
	ES 2081183	T3	19960216	ES 1993-307517	19930922	
	CA 2172374	AA	19950330	CA 1994-2172374	19940909	
	CA 2172374	C	19980526			
	WO 9508526	A1	19950330	WO 1994-EP3036	19940909	
	W: AU, BR, CA, CN, CZ, FI, HU, JP, KR, NO, NZ, PL, RU, US					
	AU 9477812	A1	19950410	AU 1994-77812	19940909	
	AU 679787	B2	19970710			
	CN 1131940	A	19960925	CN 1994-193488	19940909	
	JP 08509988	T2	19961022	JP 1994-509535	19940909	
	JP 2771038	B2	19980702			
	HU 74101	A2	19961128	HU 1996-716	19940909	
	BR 9407598	A	19970107	BR 1994-7598	19940909	
	RU 2114103	C1	19980627	RU 1996-107759	19940909	
	ZA 9407330	A	19960322	ZA 1994-7330	19940921	
	US 5618970	A	19970408	US 1996-612940	19960307	<--
	FI 9601308	A	19960321	FI 1996-1308	19960321	
	NO 9601149	A	19960521	NO 1996-1149	19960321	
PRAI	EP 1993-307517	A	19930922			
	WO 1994-EP3036	W	19940909			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 644176	ICM	C07C069-757
	ICS	C07C067-303; C07C235-40; C07C231-12

OS CASREACT 124:55417; MARPAT 124:55417

GI For diagram(s), see printed CA Issue.

AB Title compds. (I, II; R = 5-indanyl, protecting group), are prepared by hydrogenating (E)-allylic ethers (III) or (IV) in the presence of a stereoselective Rh or Ru biphosphine catalyst and a protic solvent. Thus, III (R = Me3C) cyclohexylamine salt and [(R)-(+)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl]chloro(p-cymene)ruthenium chloride in H2O/MeOH were hydrogenated at 60 psi and 45-50.degree. for 19 h to give 68% I (R = CMe3) cyclohexylamine salt (S:R = 99:1).

ST butoxycarbonylmethoxyethoxypropenylcyclopentanecarboxylate asym hydrogenation ruthenium rhodium biphosphine

IT Asymmetric synthesis and induction
(asym. synthesis of 1-[(2-tert-butoxycarbonyl-3-(2-methoxyethoxy)propyl]-1-cyclopentaneacetic acid and related compds.)

IT Hydrogenation catalysts
(stereoselective, Rh or Ru biphosphine catalysts; asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

IT Hydrogenation
(stereoselective, asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

IT 12092-47-6 37002-48-5 67884-32-6 76189-55-4 76189-56-5 142434-66-0 145926-28-9 167945-04-2
RL: CAT (Catalyst use); USES (Uses)
(asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

IT 126671-19-0P 126671-23-6P 126702-15-6P 126784-19-8P 167944-94-7P 168037-97-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

IT 873-55-2, Sodium benzenesulfinate 1950-78-3, p-Toluenesulfonyl iodide 1950-80-7 3400-45-1, Cyclopentanecarboxylic acid 42880-78-4 67299-45-0 81562-71-2 133208-86-3 **167945-05-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

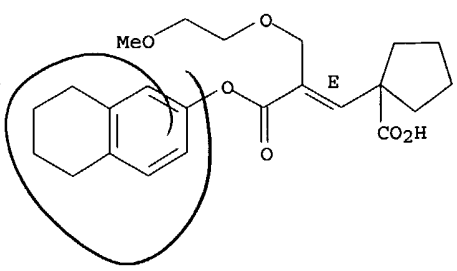
IT 167944-95-8P 167944-96-9P 167944-97-0P 167944-98-1P 167944-99-2P 167945-00-8P 167945-01-9P 167945-02-0P 167945-03-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

IT **167945-05-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(asym. hydrogenation of (E)-1-[2-(tert-butoxycarbonyl)-3-(2-methoxyethoxy)prop-1-enyl]-1-cyclopentanecarboxylic acid and related compds.)

RN 167945-05-3 HCAPLUS

CN Cyclopentanecarboxylic acid, 1-[2-[(2-methoxyethoxy)methyl]-3-oxo-3-[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]-1-propenyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



Search done by Noble Jarrell

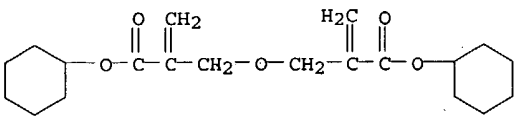
L18 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:192636 HCAPLUS
DN 120:192636
ED Entered STN: 16 Apr 1994
TI Polymethacrylimides with high heat distortion resistance
IN Besecke, Siegmund; Deckers, Andreas; Lauke, Harald
PA BASF A.-G., Germany
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT **Patent**
LA German
IC ICM C08F008-32
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 40
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 561230	A2	19930922	EP 1993-103460	19930304
EP 561230	A3	19931027		
EP 561230	B1	19960529		
R: BE, CH, DE, FR, GB, IT, LI, NL				
DE 4208994	A1	19930923	DE 1992-4208994	19920320
US 5338805	A	19940816	US 1993-31907	19930316 <--
PRAI DE 1992-4208994		19920320		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 561230	ICM	C08F008-32

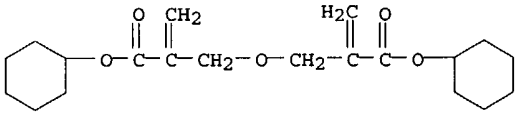
AB The title polymers, useful in moldings, films, and fibers (no data), are prepared by the reaction of polymers containing the ethers CH2:C(X)CH2OCH2C(Y):CH2 (X, Y = CO2H, carboalkoxy, acyl, amido, or CN group) 1-99, (meth)acrylic acid or their (cyclo)alkyl esters 99-1, and comonomers 0-98% with primary amines of specified structure. Peroxy ester-initiated polymerization of 60 g di-Me 2,2'-(oxydimethylene)diacrylate (prepared from Me acrylate and paraformaldehyde in the presence of triethylenediamine) with 140 g MMA in THF at 65.degree. gave 190 g copolymer, which was heated (10 g) with 10 g cyclohexylamine in N-methylpyrrolidone for 6 h with distillation of MeOH to give a polymer with N content 5.1% and glass temperature 235.degree..
ST fiber glutarimide deriv copolymer; heat resistance copolymer; oxydimethylenediacrylate copolymer imide deriv; methacrylate copolymer imide deriv; cyclohexylamine imide acrylate polymer; acrylate reaction formaldehyde
IT Synthetic fibers, polymeric
RL: USES (Uses)
(acrylic, imide group-containing, resistant to heat distortion, manufacture of)
IT Imides
RL: USES (Uses)
(polymers, resistant to heat distortion, manufacture of)
IT Amines, compounds
RL: USES (Uses)
(reaction products, with (oxydimethylene)diacrylate copolymers, resistant to heat distortion, manufacture of)
IT 109669-53-6P **152234-19-0P**
RL: PREP (Preparation)
(preparation of)
IT 50-00-0, Formaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acrylate esters)
IT 96-33-3, Methyl acrylate 3066-71-5, Cyclohexyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with formaldehyde)
IT 108-91-8DP, Cyclohexylamine, imides with (oxydimethylene)diacrylate copolymers 115597-73-4DP, imide derivs. **153775-87-2DP**, imide derivs. 153775-88-3DP, imide derivs. **153775-89-4DP**, imide derivs.
RL: PREP (Preparation)
(resistant to heat distortion, manufacture of)
IT **152234-19-0P**
RL: PREP (Preparation)
(preparation of)
RN 152234-19-0 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester (9CI) (CA INDEX NAME)



IT **153775-87-2DP**, imide derivs. **153775-89-4DP**, imide derivs.
RL: PREP (Preparation)
(resistant to heat distortion, manufacture of)
RN 153775-87-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dicyclohexyl 2,2'-[oxybis(methylene)]bis[2-propenoate] (9CI) (CA INDEX NAME)

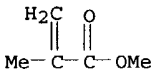
CM 1

CRN 152234-19-0
CMF C20 H30 O5



CM 2

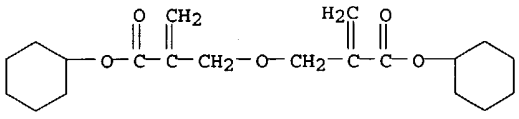
CRN 80-62-6
CMF C5 H8 O2



RN 153775-89-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dicyclohexyl 2,2'-[oxybis(methylene)]bis[2-propenoate] and ethenylbenzene (9CI) (CA INDEX NAME)

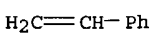
CM 1

CRN 152234-19-0
CMF C20 H30 O5



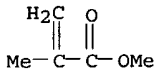
CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 80-62-6
CMF C5 H8 O2



L18 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:135421 HCAPLUS
DN 120:135421
ED Entered STN: 19 Mar 1994
TI Soluble polymers
IN Besecke, Siegmund; Deckers, Andreas; Lauke, Harald
PA BASF A.-G., Germany
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT **Patent**
LA German
IC ICM C08F216-12
CC 35-4 (Chemistry of Synthetic High Polymers)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 552603	A1	19930728	EP 1993-100100	19930107
EP 552603	B1	19960110		
R: BE, DE, FR, GB, NL				
DE 4201844	A1	19931014	DE 1992-4201844	19920124
US 5247035	A	19930921	US 1993-5781	19930119 <--
PRAI DE 1992-4201844		19920124		

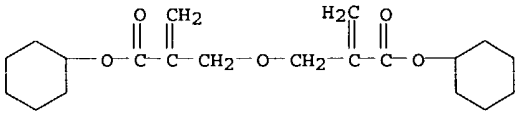
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 552603	ICM	C08F216-12

AB Polymers with solubility in THF .gtoreq.95% contain 1-99% ether CH2:C(R1)CH2OCH2C(R2):CH2 (R1, R2 = CO2H, carboalkoxy, CHO, acyl, carbamyl, CN) and 99-1% comonomer. Peroxide-initiated polymerization of 6 g di-Me 2,2'-(oxydimethylene)diacrylate with 14 g MMA in THF at 65.degree. for 24 h gave 93% polymer which was completely soluble in THF and CHCl3 and had viscosity number (0.5% CHCl3 solution) 80.
ST THF soluble polymer; oxydimethylenediacrylate copolymer THF soluble; methacrylate copolymer THF soluble
IT 115597-73-4P 153273-78-0P **153273-80-4P** 153273-81-5P
153273-82-6P 153273-83-7P **153273-85-9P** 153273-86-0P
RL: PREP (Preparation)
(THF-soluble, manufacture of)
IT **153273-80-4P 153273-82-6P 153273-85-9P**
RL: PREP (Preparation)
(THF-soluble, manufacture of)
RN 153273-80-4 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

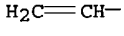
CM 1

CRN 152234-19-0
CMF C20 H30 O5



CM 2

CRN 100-42-5
CMF C8 H8

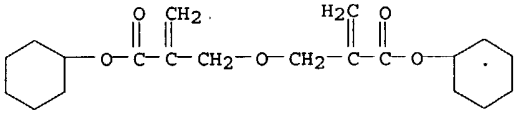


RN 153273-82-6 HCAPLUS

CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester, polymer with methyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

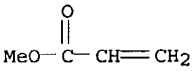
CM 1

CRN 152234-19-0
CMF C20 H30 O5



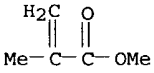
CM 2

CRN 96-33-3
CMF C4 H6 O2



CM 3

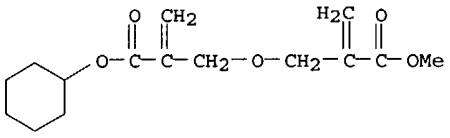
CRN 80-62-6
CMF C5 H8 O2



RN 153273-85-9 HCAPLUS
CN 2-Propenoic acid, 2-[[[2-[(cyclohexyloxy)carbonyl]-2-propenyl]oxy]methyl]-, methyl ester, polymer with methyl 2-methyl-2-propenoate and methyl-2-propenoate (9CI) (CA INDEX NAME)

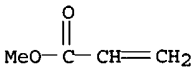
CM 1

CRN 153273-84-8
CMF C15 H22 O5



CM 2

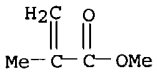
CRN 96-33-3
CMF C4 H6 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



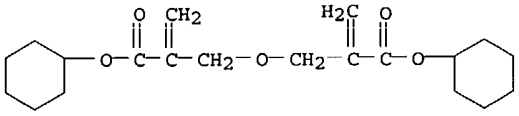
L18 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:135360 HCAPLUS
DN 120:135360
ED Entered STN: 19 Mar 1994
TI Process for separating and purifying oxadimethacrylic compounds
IN Besecke, Siegmund; Deckers, Andreas; Lauke, Harald
PA BASF A.-G., Germany
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT **Patent**
LA German
IC ICM C07C069-734
ICS C07C067-52
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 548738	A1	19930630	EP 1992-121286	19921215
R: BE, DE, FR, GB, NL				
DE 4142912	A1	19930701	DE 1991-4142912	19911224
US 5393917	A	19950228	US 1993-167119	19931216 <--
PRAI DE 1991-4142912		19911224		
US 1992-996395		19921223		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 548738	ICM	C07C069-734
	ICS	C07C067-52

OS MARPAT 120:135360
AB In the title process, the compds. CH2:C(A)CH2OCH2C(Q):CH2 [A, Q = CO2R, COR, carbamyl, CN (R = H, alkyl, cycloalkyl, hydroxyalkyl, aminoalkyl, aryl, arylalkyl)] are precipitated or crystallized from solns. in hydrocarbons. Crystallization of crude di-Me 2,2'-(oxydimethylene)diacrylate (prepared from Me acrylate and HCHO in the presence of triethylenediamine) from hexane gave 90% diester with purity 95%.
ST oxydimethylenediacrylate dimethyl crystn hexane; crystn oxadimethacrylic compd hydrocarbon
IT Crystallization
(of oxadimethacrylic compds. from hydrocarbons)
IT 109669-53-6 **152234-19-0**
RL: PROC (Process)
(crystallization of, from hydrocarbons)
IT **152234-19-0**
RL: PROC (Process)
(crystallization of, from hydrocarbons)
RN 152234-19-0 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester (9CI) (CA INDEX NAME)



L18 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:77873 HCAPLUS
DN 120:77873
ED Entered STN: 19 Feb 1994
TI Oxadimethacrylic compounds and process for their preparation
IN Besecke, Siegmund; Deckers, Andreas; Lauke, Harald
PA BASF A.-G., Germany
SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW
DT **Patent**
LA German
IC ICM C07C069-734
ICS C07C067-343
CC 35-2 (Chemistry of Synthetic High Polymers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 548764	A1	19930630	EP 1992-121357	19921216
	EP 548764	B1	19960828		
	R: BE, DE, FR, GB, NL				
	DE 4142909	A1	19930701	DE 1991-4142909	19911224
	US 5354895	A	19941011	US 1992-996394	19921223 <--
PRAI	DE 1991-4142909		19911224		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 548764	ICM	C07C069-734
	ICS	C07C067-343

AB Oxydimethacrylic monomers of the general formula CH2:CRCH2OCH2CR1:CH2 (R, R1 = CO2R3, COR3, CONR4R5, CN; R .noteq. R1; R3, R4, R5 = H, hydrocarbyl, substituted hydrocarbyl) are prepared by reaction of a mixture of 2 acrylic compds. of type H2C:CHR and H2C:CHR1 with HCHO or a HCHO precursor in the presence of O and .gtoreq.1 tertiary amine to give the alcs. H2C:CRCH2OH and H2C:CR1CH2OH, which are then treated in the presence of O and .gtoreq.1 tertiary amine. Thus, Me acrylate (I) 5, Et acrylate (II) 5, paraformaldehyde 4.5, and DABCO 0.5 mol were heated with 200 mg hydroquinone mono-Me ether in air at 75.degree. for 3 h. After removal of excess I and II as well as water of reaction and chromatog. separation, di-Me 2,2'-oxybis(methyleneacrylate) 39, Me Et 2,2'-oxybis(methyleneacrylate) 77, and di-Et 2,2'-oxybis(methyleneacrylate) 53 g were obtained.

ST oxydimethacrylic monomer prepn; acrylic monomer prepn; oxybismethylene acrylate prepn

IT 109669-53-6P, Dimethyl 2,2'-oxybis(methyleneacrylate) 115597-68-7P, Diethyl 2,2'-oxybis(methyleneacrylate) 118363-07-8P, Ethyl methyl 2,2'-oxybis(methyleneacrylate) **152234-19-0P**, Dicyclohexyl 2,2'-oxybis(methyleneacrylate) 152234-24-7P, Diisopropyl 2,2'-oxybis(methyleneacrylate) **152559-98-3P**, Cyclohexyl isopropyl 2,2'-oxybis(methyleneacrylate)
RL: PREP (Preparation)
(preparation of)

IT 80-62-6, Methyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et acrylate and formaldehyde)

IT 140-88-5, Ethyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Me acrylate and formaldehyde)

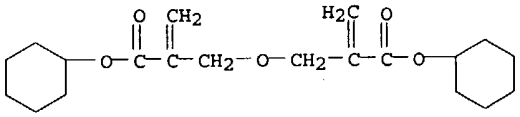
IT 50-00-0, Formaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acrylate esters, in preparation of oxydimethacrylates)

IT 689-12-3, Isopropyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyclohexyl acrylate and formaldehyde)

IT 3066-71-5, Cyclohexyl acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with iso-Pr acrylate and formaldehyde)

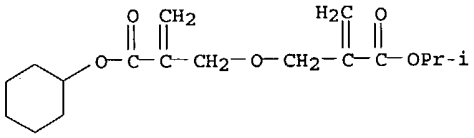
IT **152234-19-0P**, Dicyclohexyl 2,2'-oxybis(methyleneacrylate)
152559-98-3P, Cyclohexyl isopropyl 2,2'-oxybis(methyleneacrylate)
RL: PREP (Preparation)
(preparation of)

RN 152234-19-0 HCAPLUS
CN 2-Propenoic acid, 2,2'-[oxybis(methylene)]bis-, dicyclohexyl ester (9CI) (CA INDEX NAME)



RN 152559-98-3 HCAPLUS
CN 2-Propenoic acid, 2-[[[2-[(cyclohexyloxy)carbonyl]-2-propenyl]oxy]methyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

Search done by Noble Jarrell



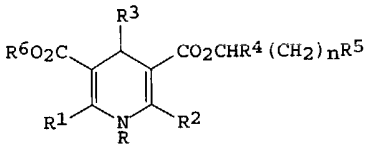
L18 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:591700 HCAPLUS
DN 101:191700
ED Entered STN: 25 Nov 1984
TI 1,4-Dihydropyridine esters and drugs containing these esters
IN Sunkel Letelier, Carlos; Pau de Casa-Juana Munoz, Miguel; Statkov, Peter R.; Straumann, Danielle
PA Cermol S. A., Switz.
SO PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DT **Patent**
LA French
IC C07D211-90; C07D401-12; C07D405-12; C07D409-04; A61K031-455
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 8402132	A1	19840607	WO 1983-CH128	19831118	
	W: JP, US					
	RW: AT, BE, CH, DE, FR, GB, LU, NL, SE					
	EP 126094	A1	19841128	EP 1983-903371	19831118	
	EP 126094	B1	19900620			
	R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE					
	JP 60500255	T2	19850228	JP 1983-503515	19831118	
	JP 05059906	B4	19930901			
	AT 53993	E	19900715	AT 1983-903371	19831118	
	CA 1256872	A1	19890704	CA 1983-441800	19831123	
	ES 527776	A1	19870716	ES 1983-527776	19831124	
	US 4656181	A	19870407	US 1984-637216	19840720	<--
	ES 543652	A1	19860116	ES 1985-543652	19850530	
	ES 543654	A1	19860116	ES 1985-543654	19850530	
	ES 543655	A1	19860116	ES 1985-543655	19850530	
	ES 543653	A1	19870216	ES 1985-543653	19850530	
	US 4727066	A	19880223	US 1986-880148	19860630	<--
PRAI	CH 1982-6858		19821124			
	EP 1983-903371		19831118			
	WO 1983-CH128		19831118			
	US 1984-637216		19840720			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
WO 8402132	IC	C07D211-90IC	C07D401-12IC	C07D405-12IC
		C07D409-04IC	A61K031-455	

GI



I

AB Dihydronicotinates I [R = H, saturated or unsatd. hydrocarbyl; R1 and R2 are H, n-alkyl; R3 = nitro-, cyano-, azido-, alkyl-, alkoxy-, hydroxy-, acyloxy-, carbalkoxy-, amino-, (acylamino)-, (alkylamino)-, (alkylthio)-, (alkylsulfinyl)-, (alkylsulfonyl)-, phenyl-, (trifluoromethyl)-, or haloaryl, benzyl, styryl, cycloalkyl, cycloalkenyl, naphthyl, quinolyl, isoquinolyl, pyridyl, pyrimidinyl, furyl, pyrryl, thienyl; R4 = H, alkyl; n = 0,1,2,3; R5 = nicotinamido, salicylamido, hydroxybenzamido,

4-substituted 1-piperazinyl, acyloxy, hydrocarbyloxy, heteroaryloxy, aryloxy; R6 = hydrocarbyl, heteroatom-containing hydrocarbyl, CHR4(CH2)nR5], useful as cardiovascular agents (no data), were prepared A solution of 3-O2NC6H4CH:C(COMe)CO2CH2CH2OC6H4NHAc-4 and MeC(NH2):CHCO2Me in EtOH was refluxed to give I (R = R4 = H, R1 = R2 = R6 = Me, R3 = 3-O2NC6H4, n = 1, R5 = 4-AcNHC6H4O).

ST nicotinate dihydro prepn cardiovascular; cardiovascular dihydronicotinate prepn; pyridinedicarboxylate dihydro prepn cardiovascular

IT Cardiovascular agents
(carbalkoxydihydronicotinate esters)

IT Cyclocondensation reaction
(of .beta.-aminocrotonate esters with (benzylidene)acetoacetate esters)

IT 13560-46-8 92565-00-9 92565-24-7 92565-43-0 92565-45-2
92565-52-1 92565-66-7 92709-50-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with (benzylidene)acetoacetate ester derivative)

IT 7318-00-5 14205-39-1 14205-46-0 50899-10-0 92564-90-4 92564-93-7
92565-10-1 92565-12-3 92565-16-7 92565-40-7 92565-54-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with (benzylidene)acetoacetate esters)

IT 7318-00-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with acetoacetate ester derivative and nitrobenzaldehyde)

IT 99-61-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with acetoacetate esters and .beta.-aminocrotonate esters)

IT 92565-20-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with acetylacetate esters and nitrobenzaldehyde)

IT 1118-84-9 92564-94-8 92565-21-4 92565-59-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with nitrobenzaldehyde and .beta.-aminocrotonate ester derivative)

IT 39562-25-9 39562-27-1 92565-02-1 92565-18-9 **92565-26-9**
92565-28-1 92565-30-5 92565-36-1 92565-38-3 92565-48-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with .beta.-aminocrotonate ester derivative)

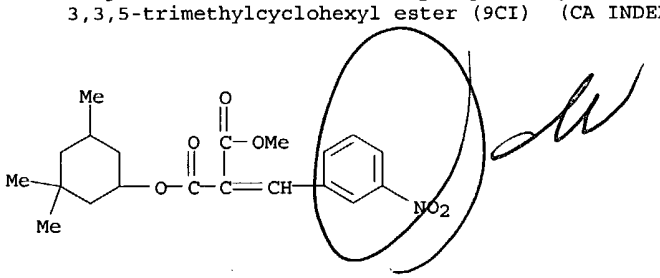
IT 39562-16-8 39562-17-9 59880-24-9 92565-05-4 92565-18-9
92565-63-4 92709-48-3 92709-49-4 92709-51-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with .beta.-aminocrotonate esters)

IT 92564-87-9P 92564-88-0P 92564-89-1P 92564-91-5P 92564-92-6P
92564-95-9P 92564-96-0P 92564-97-1P 92564-98-2P 92564-99-3P
92565-01-0P 92565-03-2P 92565-04-3P 92565-06-5P 92565-07-6P
92565-08-7P 92565-09-8P 92565-11-2P 92565-13-4P 92565-14-5P
92565-15-6P 92565-17-8P 92565-19-0P 92565-22-5P 92565-23-6P
92565-25-8P 92565-27-0P 92565-29-2P 92565-31-6P 92565-32-7P
92565-33-8P 92565-34-9P 92565-35-0P 92565-37-2P 92565-39-4P
92565-41-8P 92565-42-9P 92565-44-1P 92565-46-3P 92565-47-4P
92565-49-6P 92565-50-9P 92565-51-0P 92565-53-2P 92565-55-4P
92565-56-5P 92565-57-6P 92565-58-7P 92565-60-1P 92565-61-2P
92565-62-3P 92565-64-5P 92565-65-6P 92565-67-8P 92565-68-9P
92565-69-0P 92565-70-3P 92586-49-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **92565-26-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with .beta.-aminocrotonate ester derivative)

RN 92565-26-9 HCAPLUS

CN Propanedioic acid, [(3-nitrophenyl)methylene]-, methyl 3,3,5-trimethylcyclohexyl ester (9CI) (CA INDEX NAME)



L18 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2004 ACS on STN

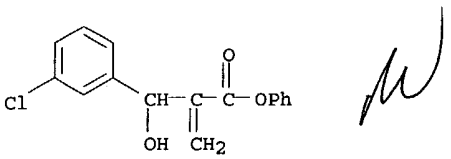
AN 1972:434174 HCAPLUS
DN 77:34174
ED Entered STN: 12 May 1984
TI Acrylic compounds
IN Baylis, Anthony Basil; Hillman, Melville Ernest Douglas
PA Celanese Corp.
SO Ger. Offen., 16 pp.
CODEN: GWXXBX
DT **Patent**
LA German
IC C07C
CC 25-20 (Noncondensed Aromatic Compounds)
Section cross-reference(s): 23
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 2155113	A	19720510	DE 1971-2155113	19711105	
	US 3743669	A	19730703	US 1970-87591	19701106	<--
	BE 774989	A1	19720505	BE 1971-110207	19711105	
	NL 7115255	A	19720509	NL 1971-15255	19711105	
	FR 2120686	A5	19720818	FR 1971-39752	19711105	
	IT 941721	A	19730310	IT 1971-30756	19711105	
PRAI	US 1970-87591		19701106			

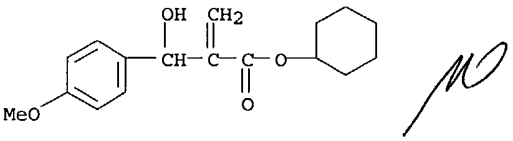
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2155113	IC	C07C

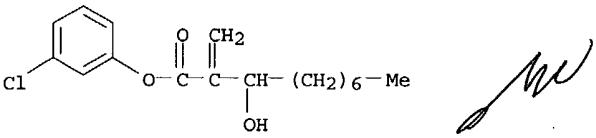
AB Nineteen title compds. H2C:CRCH(OH)R1 (I; R = e.g. CONEt2, COMe, CO2Me, CN, CO2Et, CO2Ph, cyclo-hexyloxycarbonyl, COCH2Ph, CO2C6H4Cl-m, or CO2C6H4OMe-p; R1 = Me, Ph, Pr, C7H15, c6H4Cl-m, C6H4OMe-p, CH2C6H4-NO2-p, CHMe2, or CH:CHMe) were prepared in high yields from the appropriate H2C:CHR and R1CHO over the long active catalysts 1,4-diazabicyclo[2.2.2]octane (II), pyrrocoline, or quinuclidine at 10-155.degree.. Thus, AcH 132, Et acrylate 200, and II 11.2 g were heated 8 hr at 120-4.degree. to give, at 72% selectivity, 82% I (R = CO2Et, R1 = Me).
ST acrylate addn aldehyde; vinyl ketone addn aldehyde; acrylamide addn aldehyde; diazabicyclooctane addn reaction catalyst; pyrrocoline addn reaction catalyst; quinuclidine addn reaction catalyst; addn reaction catalyst diazabicyclooctane
IT Vinyl compounds, compounds
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with aldehydes, catalysts for)
IT Aldehydes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with vinyl compds., catalysts for)
IT Addition reaction catalysts
(cyclic tertiary amines, for aldehydes with vinyl compds.)
IT Amines, uses and miscellaneous
RL: USES (Uses)
(cyclic tertiary, for addition reaction of vinyl compds. with aldehydes)
IT 78-94-4 96-33-3 107-13-1, reactions 140-88-5 768-03-6 937-41-7 2675-94-7 3066-71-5 3638-64-0 4513-44-4 25574-93-0 37442-55-0 37442-58-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with acrylic compds., catalysts for)
IT 75-07-0, reactions 78-84-2 100-52-7, reactions 122-78-1 123-11-5 123-72-8 124-13-0 587-04-2 1460-05-5 4170-30-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with vinyl compds., catalysts for)
IT 274-40-8 280-57-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for aldehyde addition reactions with vinyl compds.)
IT 2177-34-6P 18020-65-0P 19362-93-7P 19362-94-8P 19362-99-3P 37442-39-0P 37442-40-3P 37442-43-6P 37442-44-7P 37442-45-8P **37442-46-9P 37442-47-0P 37442-48-1P 37442-49-2P** 37442-50-5P 37442-51-6P 37442-52-7P 37442-53-8P 37442-54-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **37442-46-9P 37442-47-0P 37442-48-1P 37442-49-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 37442-46-9 HCAPLUS
CN Benzenepropanoic acid, 3-chloro-.beta.-hydroxy-.alpha.-methylene-, phenyl ester (9CI) (CA INDEX NAME)



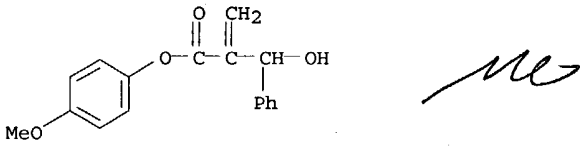
RN 37442-47-0 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-4-methoxy-.alpha.-methylene-, cyclohexyl ester (9CI) (CA INDEX NAME)



RN 37442-48-1 HCAPLUS
CN Decanoic acid, 3-hydroxy-2-methylene-, 3-chlorophenyl ester (9CI) (CA INDEX NAME)



RN 37442-49-2 HCAPLUS
CN Benzenepropanoic acid, .beta.-hydroxy-.alpha.-methylene-, 4-methoxyphenyl ester (9CI) (CA INDEX NAME)



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